

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE )  
APPLICATION OF BLUE GRASS )  
ENERGY COOPERATIVE CORPORATION )  
FOR AN ORDER AND CERTIFICATE OF )  
PUBLIC CONVENIENCE AND NECESSITY )  
AUTHORIZING APPLICANT )  
TO CONSTRUCT A DISTRICT )  
OFFICE BUILDING, )  
SERVICE CENTER AND STORAGE YARDS )  
AT CYNTHIANA, KENTUCKY )

NO. 2004-00374

**RECEIVED**

SEP 21 2004

PUBLIC SERVICE  
COMMISSION

APPLICATION

Applicant, BLUE GRASS ENERGY COOPERATIVE CORPORATION of Nicholasville, Jessamine County, Kentucky states as follows:

[Note: Blue Grass Energy Cooperative Corporation is abbreviated as "BGECC" herein.]

1. Applicant requests a certificate of public convenience and necessity authorizing the construction of a district office building, service and storage yards at Cynthiana, Kentucky, pursuant to KRS 278.020 and 807 KAR 5:001(9).

2. Applicant is a Kentucky electric cooperative corporation (non-profit without capital stock) engaging in electric distribution business in Anderson, Bourbon, Bracken, Estill, Fayette, Franklin, Garrard, Grant, Harrison, Henry, Jackson, Jessamine, Madison, Mercer, Nelson, Nicholas, Pendleton, Robertson, Scott, Shelby, Spencer, Woodford, and Washington counties of Kentucky under applicable state and federal laws.

3. That the post office address of the applicant is P.O. Box 990, 1201 Lexington Road, Nicholasville, Kentucky 40356-0990.

4. Applicant is a consolidated cooperative corporation whose articles of consolidation were approved by the Kentucky Public Service Commission and are on file in Case No. 2001-246 of the Kentucky Public Service Commission.

5. The proposed **new construction** is a district office building, service center and storage yards to replace the existing facilities at Cynthiana, Kentucky. The new construction will provide offices for customer service, administrative, engineering, operational, warehousing, inventory and construction needs and requirements for the service area.

6. Applicant proposes to finance the new construction through the use of a Rural Utilities Service loan with a term of 35 years. No rate increases will be necessary for the financing and construction of the new facilities, a discussion of the planned financing is in Exhibit A - Financing.

7. The estimated cost of the new facilities is \$3,000,000.00.

8. The estimated cost of operation after the proposed facilities are completed is \$203,500.00 annually.

9. Copies of permits from the proper public authorities for the proposed new construction will be submitted when received from such authorities.

10. The proposed location of the new facilities is 11 acres in the Cynthiana - Harrison County Business Park No. 2 on U.S. KY Highway 52 in Cynthiana, Kentucky as shown in Exhibit H.

11. A description of applicant's real estate was filed and is of record in PSC Case No. 2002-00351 which is incorporated by reference herein.

12. Applicant files as a part of this application the following Exhibits with documents and copies attached thereto:

- Exhibit A - Explanation of financing
- Exhibit B - Detailed cost estimation of project
- Exhibit C - Description of facilities to be replaced
- Exhibit D - Detailed income & balance sheet
- Exhibit E - State of operations for 12 month period July 1, 2003 to June 30, 2004
- Exhibit F - Notes outstanding as fo June 30, 2004
- Exhibit G - Estimated cost of maintenance and operation of (1) proposed facility and (2)current facilities
- Exhibit H - Project description, floor diagram, site plan and location map

**WHEREFORE,** applicant, BGECC respectfully petitions and applies to this commission for an order and certificate of public convenience and necessity authorizing the construction of a new district office building, service center and storage yards as set

forth in this application and for all other orders or certificates to which this applicant may be entitled.

Respectfully submitted,

  
HOWARD DOWNING  
109 South First Street  
Nicholasville, KY 40356  
ATTORNEY FOR APPLICANT

  
DAN BREWER, PRESIDENT AND CEO  
BLUE GRASS ENERGY COOPERATIVE  
CORPORATION  
P.O. Box 990  
1201 Lexington Road  
Nicholasville, KY 40356-0990

STATE OF KENTUCKY )  
COUNTY OF JESSAMINE )

Subscribed, sworn to and acknowledged before me by Dan Brewer, as President and CEO of Blue Grass Energy Cooperative Corporation this 15 day of September, 2004.

  
NOTARY PUBLIC, KENTUCKY STATE AT LARGE  
My Commission Expires: June 6, 2005.

**EXHIBIT A**

**FINANCING OF THE NEW FACILITY**

**KEY ASSUMPTIONS**  
**IN FINANCIAL ANALYSIS OF NEW HEADQUARTERS OFFICE**

1. Estimates of consumers and usage used in the financial forecast were from the East Kentucky Power most recent forecast and approved by RUS.
2. A 1.50 TIER (times interest earned ratio) was selected as the basis for the study. Revenue increases were added to maintain this TIER.
3. G & T capital credits allocated by EKPC were not considered.
4. A fixed interest rate was used for new loans averaging 4.4%. All current variable rate loans were increased 0.25% per year for the ten-year study.
5. General Funds usage for plant was maintained at approximately their current level.
6. A general retirement of capital credits on a 20 year cycle will continue as well as payments to estates of approximately \$800,000 per year until the equity level falls below 30%. At that time we will reconsider general retirement refunds.
7. Operations, maintenance, customer accounts, depreciation, administrative and general expenses are projected from the historical averages of 2001-2003 and the 2004 budget.
8. Plant expansion and plant retirement are a function of the averages of the 2004-2005 Work Plan.
9. Blue Grass energy's Power Requirement Study projects a load growth of approximately 3.9%
10. Purchased power costs were from East Kentucky's most recent financial forecast average for all of the member systems and adjusted .5 mills higher based on their historical comparisons, because they do not have as many large power loads with high load factors and special rates.

## FINANCING

The Cooperative plans to finance the construction of the facility through the Rural Utilities Service (RUS). The cost is currently not included in our proposed 2004-2005 workplan but will be amended by our RUS filed Representative at the time we apply for the loan. The funding of the District office will be through RUS's guaranteed loan program, financed by the Federal Finance Bank (FFB). The loan for the 2004-2005 workplan using the same financial forecast without the new Harrison District Office has been approved by RUS.

The cooperative used a fixed rate in the forecast for the Harrison District Office, however, the decision to choose fixed vs. variable will be made at the time the loan is requested from RUS. The Cooperative will monitor interest rate trends to determine the minimal rate risk in association with our current loan portfolio.

Our long-term financial forecast projected no need for member rate increases due to the projected growth in the EKPC power requirement study, nor reduction in our current level of capital credit refunds as a result of the construction of the new facility. A list of key assumptions and key results of the financial forecast are included.

**Blue Grass Energy Cooperative Corporation  
Comments Regarding  
Comparison of Selected Financial Information**

**Item 1: T.I.E.R. Goal**

The computer program used to analyze the effect on the financial performance of Blue Grass Energy requires a TIER goal. The program then uses that ratio to adjust operating parameters to meet the goal. The goal used is 1.50.

**Item 2: T.I.E.R. Earned (Without a rate increase)**

The program will predict the effect on TIER by not implementing the annual rate adjustment. You can see that there is very little effect on TIER when the District Office is constructed in 2005. We will rise above 1.50 Tier in 2010 with a building instead of 2009 without a building.

**Item 3: Operating Margins (Excl C & T + Lender CC paid)**

The program predicts the effect on margins with similar constraints as noted in Items 1 and 2.

**Items 4, 5, 6, and 7: Required increases in Revenue, Required increase per kwh (cents), Average revenue per kwh (cents) and Percent increase in Revenue**

As in the above items, the program uses the 1.5 TIER as a basis for annual changes in revenue you can see there is no effect in the long run of constructing the planned district office. The information contained in these items points out that the average price per kwh between the scenarios of not constructing a building and the planned construction is the same starting 2009 is only \$0.0001 difference in 2005 through 2008.

**Item 8: Interest on L.T.D.**

This item displays the effect on projected long-term debt of the construction plans.

**Item 9: Equity Ratio**

This item lists a decrease in equity of approximately 5.12% by 2013 without the new building and 5.38% with the new building. The decrease in equity is the effect of an annual general refund of capital credits.

**Item 10: Debt Service Coverage**

Blue Grass Energy will be able to service its debt adequately with or without the new building over the long run. It is projected to be lower in 2004 and 2005 due to the refinancing of REA debt in 2003 with shorter maturities CFC shorter debt.

**Item 11: General Funds at Year End**

Blue Grass Energy plans to continue using General Funds in the most effective manner. General Funds will be used for all items associated with the RUS approved 2004-2005 workplan.



**EXHIBIT B**

**DETAILED COST ESTIMATION OF THE PROJECT**

**Harrison District Office and Warehouse Facility  
Budget Cost Estimation  
August 2004**

<u>Item</u>	<u>Area Sq. Ft.</u>	<u>Subtotal</u>
District Office Facility	8,800	\$968,000
Service Facility (Warehouse)	11,250	\$506,000
Service Facility (Covered loading dock)	4,000	\$144,000
Service Facility (Storage addition)	3,785	\$122,000
Furniture and Fixture Allowances		\$190,000
Site Development		\$450,000
Towers and Generators		\$175,000
Architectural & Engineering Fees*		\$60,000
Environmental Studies, Geo-Technical and Topographical		\$60,000
Schematic Construction Contingency		<u>\$325,000</u>
<b>Total</b>		<b>\$3,000,000</b>

\*A/E Fees Include:  
Schematic Design, Design Development, Construction Documents,  
Bidding, Construction Administration, Architectural, Structural,  
Mechanical, Electrical, Plumbing, Civil Surveying and Interior/  
Landscape Design.

**EXHIBIT C**

**DESCRIPTION OF FACILITIES TO BE REPLACED**

### Description of Facilities to be Replaced

The existing district office facility located at 302 Oddville Avenue was originally constructed in the early 1950's. The office building consists of 6,080 square feet. There is also a vehicle shed and a storage building on the property. The office fronts on Oddville Avenue and is a full service facility providing walk-in and drive through customer service as well as member and other services to the Harrison District members. Administrative and billing services for the entire Blue Grass Energy membership are also processed out of this office.

As mentioned the office fronts on Oddville Avenue which in itself creates safety issues for both employees and members due traffic, parking, and entrance to the facility. Pedestrian traffic has to cross and/or walk directly in the vehicular traffic path of the drive through window in order to enter the front of the facility.

Renovation and remodeling of the existing facilities has been considered. Consideration had to be given to safety issues both vehicular and pedestrian as well as the age, condition, layout, code requirements, and current and future needs of this facility when looking at renovation/remodeling. It would not be a cost effective or efficient solution to renovate/remodel a 50+ year old building with a poor location. Also, maintenance on the existing building continues to be extremely high and even after renovation would still sustain higher maintenance costs than a new building.

Located at 1024 New Lair Road the operations center is remote from the office center. This creates difficulties in communication and cohesion in the two processes which need to work in conjunction for maximum service to our members. The operations center consists of 3,975 square feet and is the center for the construction and line maintenance operations. Although reviewed initially, it was determined that this property due to location and traffic accessibility is not as suitable for a joint office and operations center as the proposed site in the Business Park.

**EXHIBIT D**

**BALANCE SHEET AS OF JUNE <sup>30</sup>~~28~~, 2004**

FINANCIAL AND STATISTICAL REPORT

KY0064

PERIOD ENDED

6/2004

INSTRUCTIONS-See RUS Bulletin 1717B-2

Part C. Balance Sheet

ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS	
1. Total Utility Plant in Service	137,491,235	29. Memberships	1,014,898
2. Construction Work in Progress	2,096,645	30. Patronage Capital	38,641,193
3. Total Utility Plant (1 + 2)	139,587,880	31. Operating Margins - Prior Years	96,485
4. Accum. Provision for Depreciation and Amort.	32,221,142	32. Operating Margins - Current Year	1,210,479
5. Net Utility Plant (3 - 4)	107,366,738	33. Non-Operating Margins	62,513
6. Non-Utility Property (Net)	0	34. Other Margins and Equities	2,920,592
7. Investments in Subsidiary Companies	0	35. Total Margins & Equities (29 thru 34)	43,946,160
8. Invest. in Assoc. Org. - Patronage Capital	18,859,505	36. Long-Term Debt - RUS (Net)	13,303,762
9. Invest. in Assoc. Org. - Other - General Funds	0	(Payments - Unapplied)	0
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	2,310,338	37. Long-Term Debt - RUS - Econ. Devel. (Net)	0
11. Investments in Economic Development Projects	0	38. Long-Term Debt - FFB - RUS Guaranteed	33,963,602
12. Other Investments	0	39. Long-Term Debt - Other - RUS Guaranteed	0
13. Special Funds	0	40. Long-Term Debt Other (Net)	31,136,066
14. Total Other Property & Investments (6 thru 13)	21,169,843	41. Total Long-Term Debt (36 thru 40)	78,403,430
15. Cash - General Funds	807,056	42. Obligations Under Capital Leases - Noncurrent	0
16. Cash - Construction Funds - Trustee	0	43. Accumulated Operating Provisions and Asset Retirement Obligations	5,106,627
17. Special Deposits	0	44. Total Other Noncurrent Liabilities (42 + 43)	5,106,627
18. Temporary Investments	1,200,000	45. Notes Payable	0
19. Notes Receivable (Net)	0	46. Accounts Payable	5,316,629
20. Accounts Receivable - Sales of Energy (Net)	2,717,356	47. Consumers Deposits	876,899
21. Accounts Receivable - Other (Net)	968,918	48. Current Maturities Long-Term Debt	0
22. Materials and Supplies - Electric & Other	1,092,292	49. Current Maturities Long-Term Debt-Economic Development	0
23. Prepayments	300,473	50. Current Maturities Capital Leases	0
24. Other Current and Accrued Assets	( 101)	51. Other Current and Accrued Liabilities	1,438,869
25. Total Current and Accrued Assets (15 thru 24)	7,085,994	52. Total Current & Accrued Liabilities (45 thru 51)	7,632,397
26. Regulatory Assets	0	53. Regulatory Liabilities	0
27. Other Deferred Debits	164,118	54. Other Deferred Credits	698,079
28. Total Assets and Other Debits (5+14+25 thru 27)	135,786,693	55. Total Liabilities and Other Credits (35+ 41 + 44 + 52 thru 54)	135,786,693

**EXHIBIT E**

**STATEMENT OF OPERATIONS FOR 12 MONTHS PERIOD  
JULY 1, 2003 TO JUNE 30, 2004**

## FINANCIAL AND STATISTICAL REPORT

BORROWER DESIGNATION

KY0064

PERIOD ENDED

12-month ending June 30, 2004

INSTRUCTIONS-See RUS Bulletin 1717B-2

## Part A. Statement of Operations

ITEM	Year-to-date Last Year (a)	Year-to-date This Year (b)	Year-to-date Budget (c)	This Month (d)
1. Operating Revenue and Patronage Capital	0	67,565,921	0	0
2. Power Production Expense	0	0	0	0
3. Cost of Purchased Power	0	47,737,349	0	0
4. Transmission Expense	0	0	0	0
5. Distribution Expense - Operation	0	1,973,284	0	0
6. Distribution Expense - Maintenance	0	4,340,863	0	0
7. Customer Accounts Expense	0	2,149,125	0	0
8. Customer Service and Informational Expense	0	864,328	0	0
9. Sales Expense	0	0	0	0
10. Administrative and General Expense	0	3,616,721	0	0
11. Total Operation & Maintenance Expense (2 thru 10)	0	60,681,670	0	0
12. Depreciation and Amortization Expense	0	4,196,099	0	0
13. Tax Expense - Property & Gross Receipts	0	0	0	0
14. Tax Expense - Other	0	7,537	0	0
15. Interest on Long-Term Debt	0	2,739,189	0	0
16. Interest Charged to Construction - Credit	0	0	0	0
17. Interest Expense - Other	0	57,249	0	0
18. Other Deductions	0	18,009	0	0
19. Total Cost of Electric Service (11 thru 18)	0	67,699,753	0	0
20. Patronage Capital & Operating Margins (1 minus 19)	0	( 133,832)	0	0
21. Non Operating Margins - Interest	0	95,322	0	0
22. Allowance for Funds Used During Construction	0	0	0	0
23. Income (Loss) from Equity Investments	0	0	0	0
24. Non Operating Margins - Other	0	3,979	0	0
25. Generation and Transmission Capital Credits	0	3,205,316	0	0
26. Other Capital Credits and Patronage Dividends	0	71,840	0	0
27. Extraordinary Items	0	0	0	0
28. Patronage Capital or Margins (20 thru 27)	0	3,242,625	0	0

## Part B. Data on Transmission and Distribution Plant

ITEM	Year-to-date Last Year (a)	Year-to-date This Year (b)
1. New Services Connected	0	0
2. Services Retired	0	0
3. Total Services in Place	0	0
4. Idle Services (Exclude Seasonal)	0	0
5. Miles Transmission	0.00	0.00
6. Miles Distribution - Overhead	0.00	0.00
7. Miles Distribution - Underground	0.00	0.00
8. Total Miles Energized (5 + 6 + 7)	0.00	0.00

**EXHIBIT F**

**NOTES OUTSTANDING AS OF JUNE 30, 2004**

**NOTES OUTSTANDING**

June 30, 2004

	LOAN NO	AMOUNT	MATURITY	RATE
RUS	4430	\$34,223	35	2.000%
	4710	\$16,787	35	2.000%
	OB180	\$9,726	35	2.000%
	OB182	\$9,726	35	2.000%
	OB190	\$16,856	35	2.000%
	OB192	\$16,856	35	2.000%
	OB720	\$11,819	35	2.000%
	OB722	\$11,786	35	2.000%
	OB730	\$19,421	35	2.000%
	OB732	\$19,419	35	2.000%
	1B280	\$1,005,511	32	5.750%
	1B281	\$336,526	32	6.000%
	1B285	\$911,057	32	5.500%
	1B286	\$420,544	32	5.125%
	1B520	\$669,593	36	5.750%
	1B521	\$452	36	5.750%
	1B525	\$670,045	36	5.750%
	1B530	\$4,733,977	35	5.000%
	1B531	\$1,837,852	1	1.370%
	1B532	<u>\$2,551,586</u>	1	1.370%
TOTAL		\$13,303,762		

CFC	9001	\$3,944	35	7.000%
	9002	\$25,674	35	7.000%
	9003	\$43,956	34	7.000%
	9004	\$56,376 V		2.700%
	9005	\$146,730	12	6.950%
	9006	\$395,991	14	7.000%
	9007	\$513,535 V		2.700%
	9008	\$334,618	14	7.000%
	9009	\$686,019	14	7.000%
	9010	\$1,376,850	32	7.100%
	9011	\$553,533	26	7.100%
	9011	\$607,468	26	7.100%
	9013	\$21,841	35	7.000%
	9014	\$66,453	26	7.000%
	9015	\$136,770	12	6.950%
	9016	\$292,327	14	6.100%
	9017	\$292,717	14	7.000%
	9018	\$225,727	14	7.000%
	9019	\$213,385	28	7.100%

**NOTES OUTSTANDING**

June 30, 2004

LOAN NO	AMOUNT	MATURITY	RATE
9020	\$508,325	26	7.100%
9021	\$571,776 V		2.700%
9023	\$5,086	23	7.000%
9024	\$17,555	35	7.000%
9025	\$31,424	35	7.000%
9026	\$43,464	26	7.000%
9027	\$45,477 V		2.700%
9028	\$150,977 V		2.700%
9029	\$186,753 V		2.700%
9030	\$238,333 V		2.700%
9031	\$287,683 V		2.700%
9032	\$184,044 V		2.700%
9033	\$250,727 V		2.700%
9034	\$266,999 V		2.700%
9035	\$464,142 V		2.700%
9036	\$804,818 V		2.700%
9037002	\$1,094,587	1	2.800%
9037003	\$1,094,587	2	2.950%
9037004	\$1,094,587	3	3.250%
9037005	\$1,094,587	4	3.650%
9037006	\$1,094,587	5	4.100%
9037007	\$1,094,587	6	4.350%
9037008	\$1,094,587	7	4.650%
9037009	\$1,094,587	8	4.850%
9037010	\$1,094,587	9	5.050%
9037011	\$1,094,587	10	5.250%
9037012	\$1,094,587	11	5.300%
9037013	\$1,094,587	12	5.400%
9037014	\$1,094,587	13	5.350%
9037015	\$1,094,587	14	5.450%
9037017	\$640,039	1	2.800%
9037018	\$640,039	2	2.950%
9037019	\$640,039	3	3.250%
9037020	\$640,039	4	3.650%
9037021	\$640,039	5	4.100%
9037022	\$640,039	6	4.350%
9037023	\$640,039	7	4.650%
9037024	\$640,039	8	4.850%
9037025	<u>\$640,039</u>	9	5.050%
TOTAL	\$31,136,066		

**NOTES OUTSTANDING**  
**June 30, 2004**

	LOAN NO	AMOUNT	MATURITY	RATE
FFB	H0010	\$3,885,312	15	5.077%
	H0015	\$1,942,793	15	5.077%
	H0020	\$4,778,103	4	2.921%
	H0025	\$927,129	90 DAY	1.384%
	H0030	\$834,416	90 DAY	1.384%
	H0035	\$933,384	90 DAY	1.384%
	H0040	\$1,522,032	90 DAY	1.384%
	H0045	\$1,638,653	90 DAY	1.384%
	H0050	\$1,908,864	90 DAY	1.384%
	H0055	\$2,875,933	30	4.906%
	H0060	\$4,864,136	90 DAY	1.384%
	H0065	\$4,964,847	90 DAY	1.384%
	F0070	<u>\$2,888,000</u>	1	1.103%
TOTAL		\$33,963,602		
TOTAL		\$78,403,430		

**EXHIBIT G**

**ESTIMATED COST OF MAINTENANCE AND OPERATION OF THE  
PROPOSED FACILITY  
AND  
CURRENT COST OF MAINTENANCE AND OPERATION OF  
EXISTING FACILITIES**

BLUE GRASS ENERGY COOPERATIVE CORPORATION

Annual Operating Costs for Current Harrison District Facilities

<u>Operations Costs</u>	<u>2003 Annual Cost</u>
Depreciation	\$13,300
Insurance	\$18,974
Property Taxes	\$7,874
Electric Utilities	\$8,100
Water Utilities	\$1,750
General Maintenance	<u>\$113,000</u>
Total Annual Estimated Cost	\$162,998

BLUE GRASS ENERGY COOPERATIVE CORPORATION

Estimated Annual Operating Costs for New Harrison District Office

<u>Operations Costs</u>	<u>Estimated Annual Cost</u>	<u>Basis of Estimate</u>
Depreciation	\$50,000	Estimated life of 50 years, straight line depreciation
Insurance	\$60,000	Based on actual insurance cost prorated by district
Property Tax	\$25,000	based on actual property tax rates in effect
Electric Utilities	\$7,000	Estimated savings due to geothermal system
Water Utilities	\$1,500	Estimated savings due to two facilities combined into one
General Maintenance	<del>\$60,000</del>	Estimate maintenance cost to decrease substantial due to the continuing problems with two old buildings vs one new building
<b>Total Annual Estimated Cost</b>	<b>\$203,500</b>	

**EXHIBIT H**

**PROJECT DESCRIPTION, FLOOR DIAGRAM, SITE PLAN AND LOCATION  
MAP**

# Decision Brief

## Background

Prior to the consolidation of Blue Grass Energy and Harrison RECC on January 1, 2002, the former Harrison RECC Board of Directors and management had several discussions regarding the need to replace the existing office facility located at 302 Oddville Avenue in Cynthiana and combine it with the operations facility located at 1024 New Lair Road in Harrison County.

Since the consolidation with Blue Grass Energy and the subsequent increased technological equipment and functions handled at the Harrison District Office, it is clearly evident that a new facility is needed.

After reviewing several sites, the staff and management of Blue Grass Energy has identified an eleven acre site in the Cynthiana-Harrison County Business Park as the proposed site for a new office and operations facility.

Blue Grass Energy retained the services of CDS Associates of Cincinnati, Ohio to perform an unbiased Due Diligence Analysis of the site.

CDS' findings indicated that this eleven acre site identified as Lot 2 in the Cynthiana-Harrison County Business Park as a recommended location for the proposed new facility. In their findings CDS stated, "The proposed site is very suitable for the proposed District Branch facility and would be a fine site and good investment for the cooperative to serve its members."

Economically, the Business Park site is best suited because of the price of \$20,000 per acre which is considerably less than other investigated properties.

At the May 13, 2004 board meeting, the Blue Grass Energy Board authorized the President/CEO to negotiate the purchase of the eleven acre site in the Business Park and to negotiate the sale of the existing properties and facilities. At this time, both are in progress.

The Cynthiana-Harrison County Economic Development Authority and the Cynthiana Planning and Zoning Commission are both enthusiastic and supportive of the proposed purchase and construction in this community development.

The Cynthiana-Harrison County Business Park is centrally located on Highway 62. This road is one of the main routes to the Toyota facility in Georgetown and is in one of Blue Grass Energy's highest growth areas.

## **Design Proposal**

The main goal of the Blue Grass Energy Board is to construct a combined office and operations facility to improve services to its members, improve functionality of space, improve productivity of employees, and provide a facility that is safe. Additionally, a new facility is an asset to the business community and an attractive asset for future growth in the Business Park.

In today's high technology environment in the utility industry, we are constantly challenged to accommodate demands for new innovation and facilities to support them. We depend on technology for both our administrative and distribution services.

Additionally, adequate warehousing facilities demand the need for material staging and loading areas in all weather conditions.

Since consolidating with Harrison RECC, Blue Grass Energy's office facility in Cynthiana now houses the entire Cooperative's billing operations, economic development office, and right-of-way office. It also houses one of the Cooperative's human resources (benefits) offices.

All of these new requirements, added since the consolidation, have made this facility inadequate.

## **Current Facilities**

The current office location at 302 Oddville Avenue in Cynthiana is land-locked and will not accommodate an operations center. Even if this were an option, costs of construction of the operations center and renovation of the existing office facility would be expensive.

The current office facility is not easily accessible to handicapped consumers or employees and the building's electrical wiring and communications systems are not adequate to support the technology tools the Cooperative is adding. The building needs extensive repairs.

The location at 1024 New Lair Road in Harrison County is larger, but is not centrally located for consumers or safely accessible because it is located on a narrow two-lane highway at the bottom of a steep hill.

Additionally, the necessity of expanding and renovating the existing operations center to make it workable would add additional expense to this project.

## Options

1. Build a new combined office and operations facility with approximately 27,835 square feet at an estimated cost of \$3,000,000. This would satisfy the goals in the Design Proposal.
2. Renovate the existing office and operations facilities at an estimated cost of \$1,758,000.00 and leave the operations center at the current location.
3. Build a new office facility at 1024 New Lair Road. This proposal is not practical for the reasons stated in Current Facilities and would still incur the cost of a new office building and renovation and expansion of the existing operations center.

## Proposal

Based on the goals of the Blue Grass Energy Board of Directors to better serve its members, add benefit to the community, and stimulate economic growth of the community, option 1 is recommended.

Additional benefits include: location of a combined office and operations facility, central location near high growth customer base, employee productivity enhanced, state and federal code requirements met, image of the Cooperative is enhanced, and the local Business Park is promoted.

## Disbursement of Existing Facilities

Blue Grass Energy plans to sell the existing district office and operations center property after completion of the new facility. Both properties have been appraised by three individuals in 2004 and the average appraised values are:

1. Oddville Avenue Office and Property	\$389,660
2. New Lair Road Operations Center and Property	<u>\$375,000</u>
Total Appraised Value	\$764,660

## **Addendum**

Included is a copy of the Environmental Study of the Business Park site prepared by East Kentucky Power Cooperative (EKPC) and the approval letter from the Rural Utilities Service (RUS).

Additionally included are copies of the proposed site plan, floor plan, elevations, schedules, and details included in the RFP.

REPORT OF  
GEOTECHNICAL CHARACTERIZATION INVESTIGATION  
HARRISON COUNTY INDUSTRIAL PARK #2  
CYNTHIANA, KENTUCKY

**RHODES**  
**INCORPORATED**

*Engineers • Geologists • Drilling*

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Lexington, Kentucky

**REPORT OF  
GEOTECHNICAL CHARACTERIZATION INVESTIGATION  
HARRISON COUNTY INDUSTRIAL PARK #2  
CYNTHIANA, KENTUCKY**

**FOR  
QUEST ENGINEERS, INC.  
LEXINGTON, KENTUCKY**

**JANUARY 5, 2001**

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**RHODES**  
**INCORPORATED**  
*Engineers • Geologists • Drilling*

January 5, 2001

Mr. Joe Lewis  
Quest Engineers, Inc.  
881 Corporate Drive  
Lexington, Kentucky 40503

Re: Report of Geotechnical Characterization Investigation  
Harrison County Industrial Park #2  
Cynthiana, Kentucky

Dear Mr. Lewis:

RHODES INCORPORATED is pleased to present our report for the geotechnical investigation performed at the above referenced site.

This report contains our general conclusions and recommendations based on a review of the soil, rock, and water conditions encountered at this site. This study was performed during December 2000 and January 2001.

Unless prior arrangements are made, any remaining soil samples will be stored for six (6) months from the date of the report. Rock samples will be retained for twelve (12) months. Samples will then be routinely discarded without further notice.

We appreciate the opportunity to assist you on this project. If we can be of further service on this or other projects, please contact us.

Sincerely,  
RHODES INCORPORATED



H. Jack Geisler, P.E.  
Vice President, Engineering Services

HJG/sem  
00-276

Attachment

Geotechnical • Environmental • Drilling • Lab Testing • Construction Monitoring

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## INTRODUCTION

### BACKGROUND

According to current plans, the proposed project will consist of the development of the existing land into an industrial park. This naturally will require considerable grading and reshaping of the present terrain. This characterization study was performed in general accordance with the scope of work as outlined in Rhodes Incorporated's proposal which was dated November 2, 2000.

### PURPOSE AND SCOPE

The purpose of this investigation was to determine the general characterization of the subsurface conditions at the project site through a program of controlled drilling, sampling, and testing; and to evaluate these findings with respect to the site development grading, conditions that may increase costs, range of soil and rock bearing capabilities, and development of general construction procedures.

More specifically, the objectives were:

1. to determine the textures, thicknesses, consistencies, and general physical properties of the in-place soil strata encountered at the boring locations,
2. to determine the depths to and elevations of the underlying bedrock surface, the general geologic conditions existing at the site, and the nature and physical characteristics of the bedrock where cored,
3. to determine existing surface and subsurface water conditions at the site and their relation to design, construction, and service of the proposed project,
4. to make general recommendations concerning foundation type, design, and construction based on the encountered conditions,
5. to determine the moisture-density relationship of the soils, and
6. to determine the California Bearing Ratio (CBR) of the soil for pavement design purposes.

## II

### INVESTIGATIVE METHODS

After authorization to proceed was obtained, the borings were approximately located by personnel of our firm. Refer to the accompanying "Boring Layout" for the location of these borings.

To determine general descriptions, locations, and thicknesses of the on-site soil strata, a total of seven (7) soil borings were performed. A truck-mounted, auger-type drill rig was used for this work. In conjunction with this drilling, eleven (11) Standard Penetration Tests were performed to provide a measure of soil consistency and to provide samples for laboratory testing.

Rock coring was also performed in two (2) of the borings with a truck-mounted drill rig using an NQ2 core barrel, which produced cores of 2-inch diameter. Upon the completion of the drilling, the rock cores were returned to our office where detailed core logs were prepared by a project geologist based upon visual examination.

The recovered soil samples were sealed and returned to our laboratory where classification and other physical property tests were performed on representative samples in general accordance with applicable ASTM standards.

Surface and subsurface water conditions at the site were evaluated through visual examination, bore hole monitoring, and laboratory testing.

The visual examination consisted of identifying surface features that effected or were effected by surface or subsurface water conditions.

Upon the completion of the drilling, all borings were checked for the presence of free water.

All Standard Penetration Test samples were subjected to natural moisture content determinations.

### III

## INVESTIGATIVE RESULTS

### SOIL CONDITIONS

The soil encountered on the site consisted of silty clays (lower areas) and fat clays (higher areas) that are tan in color and contain varying amounts of rock fragments and particles. The soils are generally damp with a very stiff consistency.

Representative samples of the soils were subjected to various laboratory tests. The results are presented in Appendix A and these results are also discussed below.

The testing on the soil from Boring 7 (higher elevation) revealed that the percentage of fines (silt and clay passing the No. 200 sieve) was 92.8. The Atterberg Limit testing revealed a Liquid Limit of 68 with a Plasticity Index of 41. Based upon these test results, the Unified Soil Classification was determined to be a CH which is an inorganic clay of medium to high plasticity (fat clay). A Standard Proctor Test indicates that the maximum dry density of this soil is 99.0 pcf with an optimum moisture content of 23.3 percent. Based upon this test data a California Bearing Ratio (CBR) sample was remolded to approximately 100 percent of the maximum dry density at or near the optimum moisture content. The test results revealed a CBR value of 0.4.

The testing on the soil from Boring 3 (lower elevation) revealed that the percentage of fines (silt and clay passing the No. 200 sieve) was 76.6. The Atterberg Limit testing revealed a Liquid Limit of 47 with a Plasticity Index of 25. Based upon these test results, the Unified Soil Classification was determined to be a CL which is an inorganic clay of low to medium plasticity (lean clay), a sandy clay, or a silty clay.

A Standard Proctor Test indicates that the maximum dry density of this soil is 105.8 pcf with an optimum moisture content of 21.0 percent. Based upon this test data, a California Bearing Ratio (CBR) sample was remolded to approximately 100 percent of the maximum dry density at or near the optimum moisture content. The results revealed a CBR value of 2.6.

A summary of the Standard Penetration Test Blow Counts (N) is presented in Appendix B and the natural moisture content determinations are presented in Appendix A.

A graphic presentation of the Standard Penetration Test data is detailed on the accompanying "Logs of Borings".

### ROCK CONDITIONS

A review of geologic maps of the area reveals that the proposed site is underlain by bedrock of the Lexington Limestone and the Clays Ferry Formation of the Middle and Upper Ordovician Geologic Age. The formations, which are found within the limits of the site are from lowest elevation to the highest, are the Tongue of Millersburg Member, Tongue of Clays Ferry Formation, Tongue of Tanglewood Limestone Member, Tongue of Millersburg Member, Upper Tongue of the Tanglewood Limestone Member, and the Clays Ferry Formation.

The lower Tongue of the Millersburg Member, which can vary in thickness from 15 to 50 feet, consists of limestone and shale. The limestone is brown to gray, fine grained and is present in irregular beds that are characterized by abundant nodules that distort bedding planes in a wave-like pattern. The limestone weathers to a limonitic rubble. The shale is gray and makes up 15 to 20 percent of the formation.

The Tongue of the Clays Ferry Formation, which can vary in thickness from 10 to 30 feet, consists of limestone and shale. The limestone is brown to gray and weathers to a pale brown. It is micro-grained to fine-grained and is present in even, commonly laminated beds generally that are less than 6 inches thick. The limestone weathers to a distinctive, smooth, blocky to platy fragments. The shale is olive-gray and often makes up as much as 50 percent of the formation.

The Tongue of the Tanglewood Limestone Member, which can vary in thickness from being absent up to 40 feet, is gray, brown, and light hues of these colors. It is fine to coarse grained and evenly bedded. It weathers to brown or white with granular surfaces that are locally pitted.

The higher elevation Tongue of the Millersburg, which can vary in thickness from 10 to 20 feet, consists of limestone and shale. The limestone is gray to brown, fossiliferous, fine grained and the bedding is characteristically uneven to nodular. The shale, which is present in significant amounts, is olive-gray.

The Upper Tongue of the Tanglewood Limestone Member, which can vary in thickness from 10 to 30 feet, consists of gray to brown limestone that is fine to coarse grained and evenly bedded.

The highest formation within the limits of the site is the Clays Ferry Formation, which has a thickness of over 45 feet, consists of shale and limestone. The shale, which makes up approximately half of the formation, is gray to green, and platy to massive. The limestone is brown to gray and weathers to a reddish-brown. It is fine to medium grained and weathers to slabs with rough, granular surfaces. The thicknesses of the beds are commonly less than 8 inches.

Both rock cores were advanced into the Clays Ferry Formation and Boring 5 may have penetrated into the lower Tongue of the Millersburg. The cores revealed that locally the upper bedrock is a limestone with much intermixed shale and clay seams. The limestone is gray, fine grained, generally thin bedded and medium hard to hard. This rock is moderately to heavily weathered. The upper layer extends 5.0 to 7.5 feet below the rock/soil contact. The deeper rock is limestone (50 percent) and calcareous shale (50 percent). The limestone is light to medium gray, fine grained, clastic, fossiliferous, and hard. The shale is gray, fine grained, calcareous, and medium hard to hard.

Refusal was encountered in all of the borings and the depth ranged from 2.4 feet in Boring 4 to 8.8 feet in Boring 3.

## WATER CONDITIONS

A visual reconnaissance of the area revealed that the site consists of sloping and rolling terrain which is mostly grass-covered with the exception of areas which have been disturbed due to the placement of the roadway fill. Most of the surface runoff flows into drainage swales that direct the water into ponds that eventually allow the water to exit the site toward the north or west. This reconnaissance did not reveal the presence of any ponded water or wet, soft surface areas.

Upon the completion of the drilling, all borings were checked for the presence of free water, but none was observed.

The determined natural moisture contents for the Standard Penetration Test samples varied from a low of 7.9 percent (Boring 5/Sample 1) to a high of 25.1 percent (Boring 1/Sample 1). The average natural moisture content based upon the ten (10) samples was determined to be 17.2 percent which is 3.8 to 6.0 percentage points below the optimum moisture contents as determined by the Standard Proctor Tests.

## IV

### NOTES AND RECOMMENDATIONS

#### FOUNDATION DESIGN

The results of this investigation indicate that the proposed building can be supported by bearing on the natural soil or the underlying bedrock. Any of the more economical types of shallow foundation systems, such as, continuous wall footings, isolated column footings and/or floor slab on grade should serve satisfactorily to support proposed structures.

It should be noted that only seven (7) borings were advanced in this study with the intention of only obtaining general data on the underlying soil and rock conditions. Therefore, the allowable bearing capacity ranges that are presented below are meant to only be used as a guide in determining feasibility, and final allowable bearing capacities used for design should be determined based upon a much more detailed drilling program that is performed within the immediate vicinity of a proposed building once it has been determined.

Bearing Value for Soil	3,500 – 6,000 psf
Bearing Value for Upper Rock/Clay	12,000 – 18,000 psf
Bearing Value for Deeper Rock/Shale	20,000 – 30,000 psf

Based upon the final design plans and the refusal elevations, there could be the potential for a structure to be bearing on both soil and bedrock. Although both are acceptable bearing mediums, this condition should be avoided because if bearing on both, the compressible soil will allow for settlement while the relatively incompressible bedrock will not. The potential result will be excessive differential settlement. In order to avoid this condition the structure should be all soil bearing or all rock bearing.

If the structure is to be soil bearing, then there should be a minimum of two (2) feet of soil between the bottom of the footing and the bedrock surface. If bedrock is encountered at the footing elevation or within two (2) feet of the elevation, then the rock should be over excavated in order to achieve the required two (2) foot soil cushion depth. The back filled soils should be placed in six (6) inch lifts in the footing trenches and compacted to 100 percent of their maximum dry density as determined by the Standard Proctor Tests. In areas of concern regarding the adequate soil cover, rod soundings should be performed in order to verify the two (2) foot soil depth.

Should it be decided to utilize the underlying bedrock as the bearing medium, then additional foundation excavation will be required in some areas when the rock exists at a deeper depth. If the footings are to bear directly on the bedrock, this will require an increased height in columns and foundation walls. An alternate would be to backfill the foundation excavation to the original footing elevation with No. 57 stone. If this procedure is utilized, then the recommended allowable bearing value should be reduced to 8,000 psf.

Due to the compressibility of soil, buildings which are soil bearing will often display some minor cracking of masonry even when the bearing pressure is kept at or below the recommended value.

In addition, minimum-footing widths of 18 and 24 inches should be observed for all continuous and isolated footings, respectively.

All exterior footings should be located at a depth of at least 2.5 feet below finished grade in order to reduce the risk of damage due to frost heave.

## GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS

### 1. Site Preparation and Grading

Strip and stockpile any topsoil and organic material. These materials are not suitable for use as bearing medium beneath the footings, floor slab, or pavements. Consider their use in landscaping areas only.

The exposed soil subgrade, after removal of topsoil and construction debris, etc., in areas which will support footings or floor slabs should be inspected for pockets of loose material by probing or proof rolling. Any such materials should either be compacted to 100 percent of their Standard Proctor maximum dry density or removed and replaced with well-compacted, suitable fill material.

### 2. Site Excavation

Based upon the examination of the two (2) rock cores, the upper 5.0 to 7.5 feet of limestone with intermixed clay seams should be able to be removed with conventional earthmoving equipment with minimal amount of added effort. Below this the excavation of the rock will become more difficult, but based upon the limited data available, it is believed that some of the limestone and shale can be removed without blasting. Once the Tanglewood Limestone is encountered, blasting will be necessary. At the higher elevations of the site, the Tanglewood can be expected to be encountered between 835 and 800.

### 3. Fill Placement and Grading

The on-site soils may be used for fill material provided they are free of topsoil and organic material. Rock fragments and slabs smaller than six inches in thickness and one foot in any other direction may also be used. Larger rock fragments may be placed in landscaped areas provided they are three feet below grade.

As noted earlier, the on-site soils exhibit moderate to significant plasticity and tend to shrink and swell as they change moisture content. As a result, they should be placed in six to eight-inch thick, loose layers and compacted to the following percentages of their Standard Proctor maximum dry density (ASTM D-698):

<u>LOCATION</u>	<u>% OF MAXIMUM DRY DENSITY</u>
Footings & Floor Slabs	100.0
Paved Areas	98.0
Landscape Areas	85.0

Due to the high amount of fine-grained particles within the soil, these compaction requirements are slightly higher than usually recommended.

Field density tests and monitoring should be performed on the fill material by a soils engineer or technician as the lifts are being placed in order to verify that compaction standards are met. Testing of only the final lift does not insure that the fill has been correctly placed and compacted.

Close field supervision should be exercised when using these soils as backfill. If excessively wet, these soils are difficult to work and offer low strengths. On the other hand, if they have moisture contents at, or close to, optimum they are readily compacted.

If any fill is placed during freezing or wet weather, do not use material that has become frozen or saturated. Remove any material on the exposed surface of fill areas that has become frozen overnight or that exceeds the optimum moisture by more than two percent.

If during this earthwork phase any conditions are encountered which are significantly different than those reflected by this investigation, our office should be contacted so that the site may be inspected and modifications made to the recommendations, if necessary.

#### **4. Foundation Excavations**

Soils exposed in the bottom of all foundation excavations should be protected against any detrimental change in conditions such as disturbance, rain, or freezing. This is especially important given the capability of the cohesive soils to absorb water, and as a result, lose a substantial percentage of their strength. Surface runoff should be directed away from such excavations and not be permitted to pond. Optimum protection can best be achieved if all footing concrete is poured the same day the excavation is made. If this is not practical, the footing excavations should be adequately protected. Additionally, areas adjacent to the proposed structure should be sloped in a manner that will provide positive drainage away from the structure.

#### **5. Slab on Grade**

Floor slabs should be fully ground-supported and not structurally connected to walls or foundations. This will aid in reducing the possibility of cracking and displacement of the floor slabs due to any differential settlement between them and the foundation.

Floor slabs should also be directly underlain by a four to six-inch layer of relatively clean, granular material such as sand, sand and gravel, or crushed stone.

As previously discussed, in-place soils will shrink and swell as moisture content changes. Slabs on grade will be particularly sensitive to this characteristic. Design and construction techniques which will minimize problems include:

- a. Once the original contour has been disturbed, complete the excavation and pour concrete as soon as possible. Best results will be obtained if no precipitation falls during this period.
- b. Under no circumstances should water be allowed to pond. This is important during or after construction. During construction, this may require planning ahead for the unexpected rainstorm.
- c. Openings in the slab, such as individual column footings or contacts with walls, allow infiltration of surface water. Consider sealing these joints unless the roof is in place.

## 6. **Pavement Design**

Based upon the determined CBR values of 2.6 for the silty clay and 0.4 for the fat clay, additional expenses can be expected for the development of pavement areas. These low values will result in the need for additional DGA and asphalt or the installation of woven geotextile that addresses separation, stabilization, and reinforcement of the subgrade soil.

The final pavement design should be based upon the test results performed on samples taken at the specific site location at the time of the comprehensive geotechnical investigation.

## LIMITATIONS

### VARIATIONS

Since any general foundation or subsurface investigation can examine and report only that information which is obtained from the borings and samples taken therefrom, and since uniformity of subsurface conditions does not always exist, we offer this further recommendation. If, during construction, any latent soil, bedrock, or water conditions are encountered that were not observed in the borings, contact us in order that we may inspect the site and make any modifications in the design or construction of the foundation that may be necessary.

### OTHER INTERPRETATIONS

The conclusions and recommendations submitted in this report apply to the proposed project only. They are not applicable to on-site, subsequent construction, adjacent or nearby projects. In the event that conclusions or recommendations based on this report and relating to any other projects are made by others, such conclusions and recommendations are not the responsibility of Rhodes Incorporated.

### STANDARD OF CARE

Services provided by Rhodes Incorporated in this investigation have been performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

**APPENDIX A**  
**SUMMARY OF LABORATORY TEST DATA**

# SUMMARY OF LABORATORY TEST DATA

BORING NO.	3	7					
SAMPLE NO.							
DEPTH, FT.							
SAMPLE TYPE	BAG	BAG					
SOIL CLASSIFICATION	CL	CH					
NATURAL WATER CONTENT, %							
WET UNIT WEIGHT, PCF							
DRY UNIT WEIGHT, PCF							
SPECIFIC GRAVITY							
% GRAVEL	7.3	1.6					
% SAND	16.1	5.6					
% SILT							
% CLAY							
% PASSING NO. 200 SIEVE	76.6	92.8					
LIQUID LIMIT	47	68					
PLASTIC LIMIT	22	27					
PLASTICITY INDEX	25	41					
UNCONFINED STRENGTH, TSF							
φ, DEGREES							
COHESION, PSF							
MAXIMUM DRY DENSITY, PCF	105.8	99.0					
OPTIMUM MOISTURE CONTENT, %	21.0	23.2					
COMPRESSION INDEX							
CBR	2.6	0.4					
JOB NO:	00-276	DATE:	JANUARY 5, 2001				

# NATURAL MOISTURE CONTENT

## HARRISON COUNTY INDUSTRIAL PARK CYNTHIANA, HARRISON COUNTY, KENTUCKY

00-276

BORING NO.	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	NATURAL MOISTURE CONTENT (%)
1	1	SPT	2.5 - 4.0	25.1
1	2	SPT	5.0 - 6.5	21.1
2	1	SPT	2.5 - 4.0	23.7
2	2	SPT	5.0 - 6.1	15.5
3	1	SPT	2.5 - 4.0	17.3
3	2	SPT	5.0 - 6.5	10.7
3	3	SPT	7.5 - 8.8	*
5	1	SPT	2.5 - 3.2	7.9
6	1	SPT	2.5 - 3.8	20.6
7	1	SPT	2.5 - 4.0	16.1
7	2	SPT	5.0 - 6.5	14.1

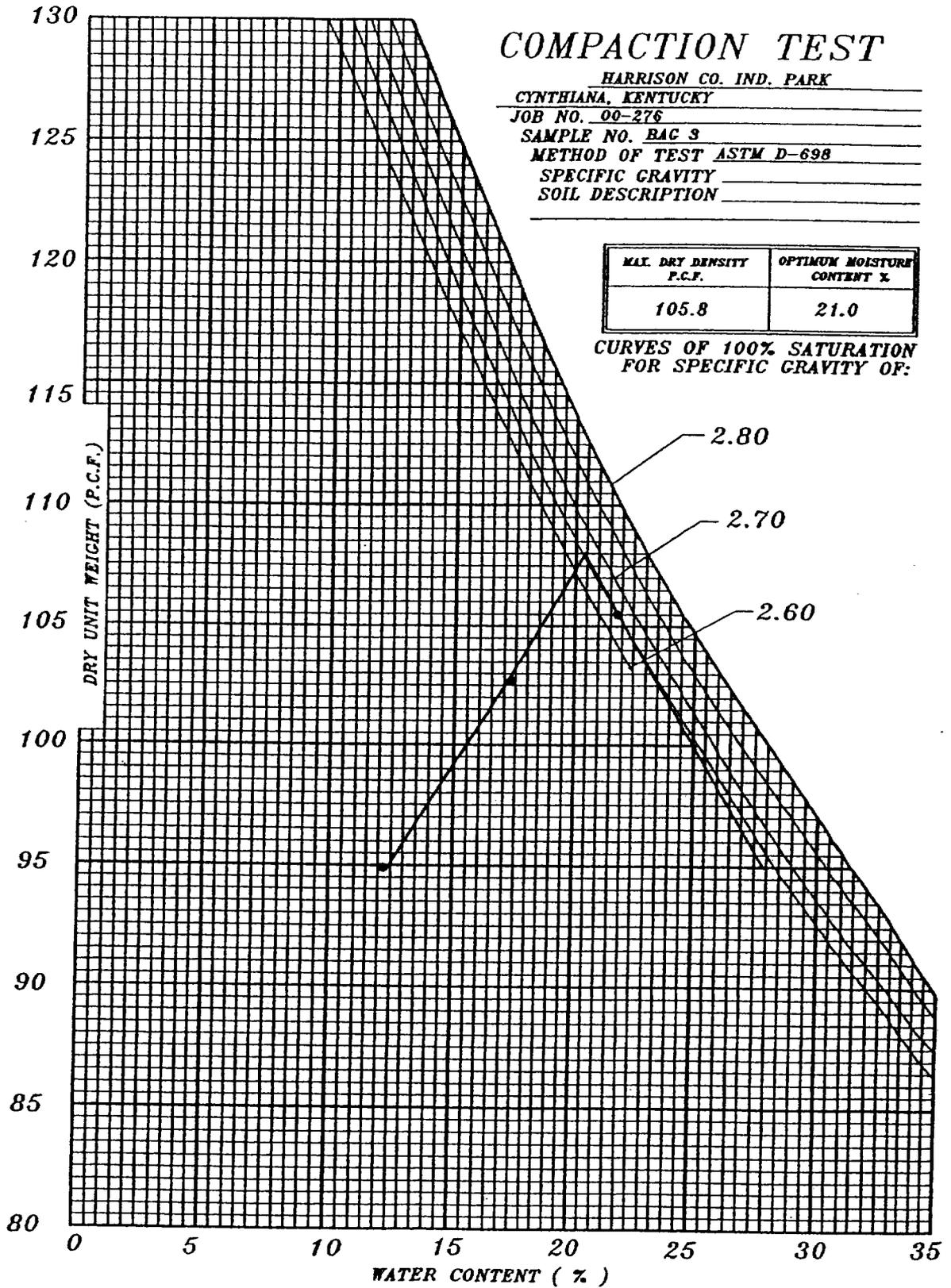
\* NO RECOVERY

# COMPACTION TEST

HARRISON CO. IND. PARK  
 CYNTHIANA, KENTUCKY  
 JOB NO. 00-276  
 SAMPLE NO. BAC 3  
 METHOD OF TEST ASTM D-698  
 SPECIFIC GRAVITY \_\_\_\_\_  
 SOIL DESCRIPTION \_\_\_\_\_

MAX. DRY DENSITY P.C.F.	OPTIMUM MOISTURE CONTENT %
105.8	21.0

CURVES OF 100% SATURATION  
 FOR SPECIFIC GRAVITY OF:



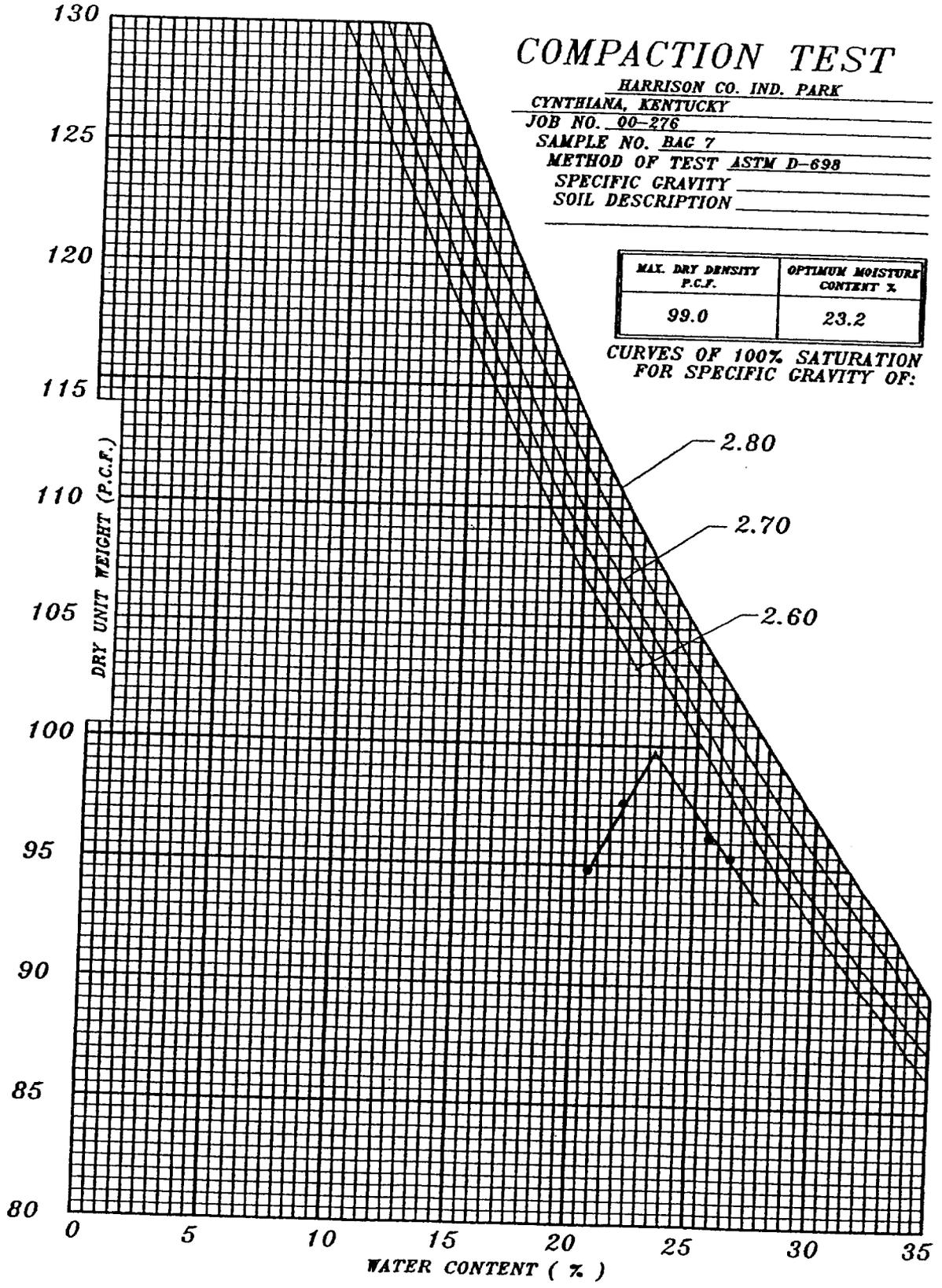
PREPARED BY RHODES INCORPORATED, LEXINGTON, KENTUCKY

# COMPACTION TEST

HARRISON CO. IND. PARK  
 CYNTHIANA, KENTUCKY  
 JOB NO. 00-276  
 SAMPLE NO. BAC 7  
 METHOD OF TEST ASTM D-698  
 SPECIFIC GRAVITY \_\_\_\_\_  
 SOIL DESCRIPTION \_\_\_\_\_

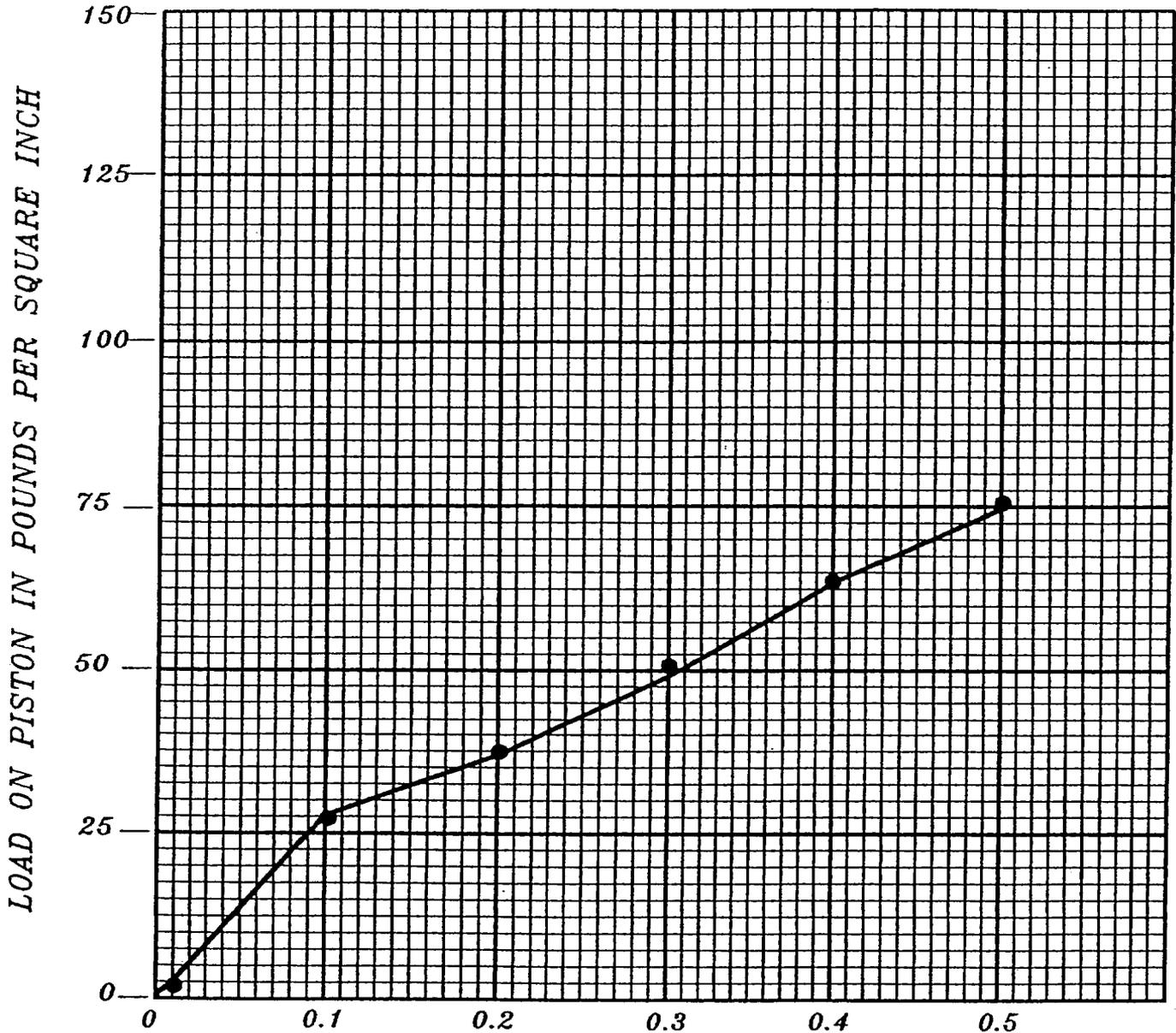
MAX. DRY DENSITY P.C.F.	OPTIMUM MOISTURE CONTENT %
99.0	23.2

CURVES OF 100% SATURATION  
 FOR SPECIFIC GRAVITY OF:



PREPARED BY RHODES INCORPORATED, LEXINGTON, KENTUCKY

## BEARING RATIO OF LABORATORY-COMPACTED SOILS

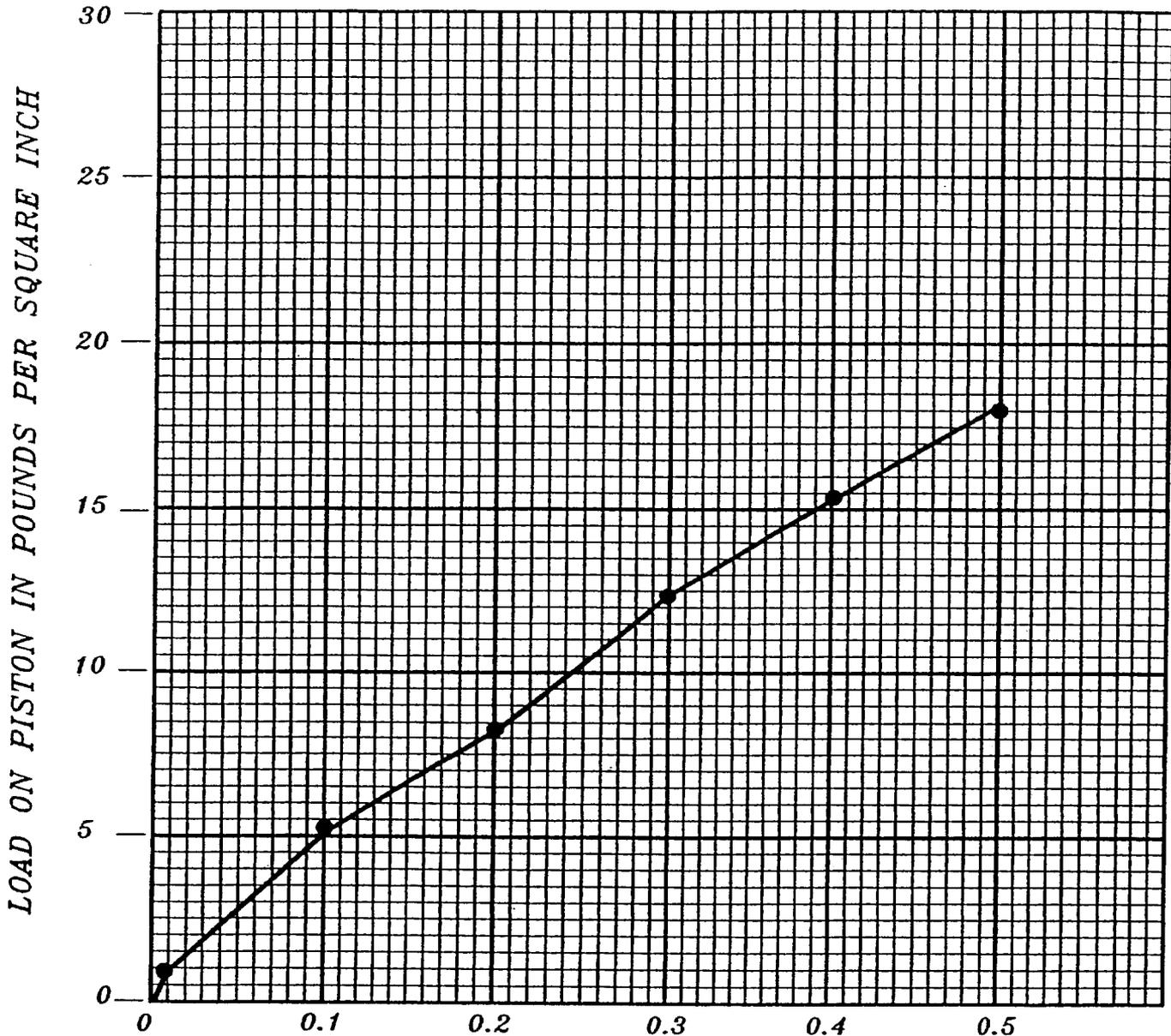


METHOD OF TESTING A.S.T.M. D-1883  
X KM 64-501-80  
 MAXIMUM DRY DENSITY(PCF) 105.8  
 OPTIMUM MOISTURE CONTENT(%) 21.0  
 COMPACTION (% MAX, DRY DENSITY) -  
 MOISTURE BEFORE COMPACTION(%) -  
 CONTENT AFTER SOAKING(%) -  
 %SWELL  CONSOLIDATION  -  
 DRY DENSITY BEFORE SOAKING(PCF) -  
 AFTER SOAKING (PCF) -  
 BEARING RATIO OF SAMPLE (%) 2.6

JOB NAME: HARRISON CO. IND. PARK  
 JOB LOCATION: CYNTHIANA, KENTUCKY  
 JOB NUMBER: 00-276  
 CLIENT: -  
 SAMPLE DATA: -BORING NO. B-3  
-SAMPLE NO.  
-DEPTH (FT) -  
 SOIL DESCRIPTION: -  
-  
-  
-

PREPARED BY: RHODES INCORPORATED, LEXINGTON, KENTUCKY

## BEARING RATIO OF LABORATORY-COMPACTED SOILS



METHOD OF TESTING A.S.T.M. D-1883

X KM 64-501-80

MAXIMUM DRY DENSITY(PCF) 99.0

OPTIMUM MOISTURE CONTENT(%) 23.2

COMPACTION (% MAX, DRY DENSITY) -

MOISTURE BEFORE COMPACTION(%) -

CONTENT AFTER SOAKING(%) -

%SWELL  CONSOLIDATION  -

DRY DENSITY BEFORE SOAKING(PCF) -

AFTER SOAKING (PCF) -

BEARING RATIO OF SAMPLE (%) 0.4

JOB NAME: HARRISON CO. IND. PARK

JOB LOCATION: CYNTHIANA, KENTUCKY

JOB NUMBER: 00-276

CLIENT: -

SAMPLE DATA: -BORING NO. B-7

-SAMPLE NO.

-DEPTH (FT) -

SOIL DESCRIPTION: -

PREPARED BY: RHODES INCORPORATED, LEXINGTON, KENTUCKY

**APPENDIX B**  
**SUMMARY OF DRILLING DATA**

# STANDARD PENETRATION TEST

HARRISON COUNTY INDUSTRIAL PARK  
CYNTHIANA, HARRISON COUNTY, KENTUCKY  
00-276

BORING NO.	SAMPLE NO.	SAMPLE DEPTH (FT.)	BLOW COUNTS
1	1	2.5 - 4.0	22
1	2	5.0 - 6.5	17
2	1	2.5 - 4.0	32
2	2	5.0 - 6.1	50+
3	1	2.5 - 4.0	21
3	2	5.0 - 6.5	20
3	3	7.5 - 8.8	50+
5	1	2.5 - 3.2	50+
6	1	2.5 - 3.8	50+
7	1	2.5 - 4.0	23
7	2	5.0 - 6.5	47

DEPTHS TO REFUSAL

HARRISON COUNTY INDUSTRIAL PARK  
CYNTHIANA, HARRISON COUNTY, KENTUCKY  
00-276

BORING NO.	SURFACE ELEVATION	DEPTH TO REFUSAL (FT.)	REFUSAL ELEVATION
1	847.0	7.0	840.0
2	840.0	6.1	833.9
3	824.0	8.8	815.2
4	798.0	2.4	795.6
5	792.0	3.2	788.8
6	823.0	3.8	819.2
7	849.0	7.2	841.8

NOTE: All elevations picked from topo at boring locations.

**APPENDIX C**  
**DETAILED CORE LOGS**

SUBSURFACE LOG

County: <u>Harrison</u> Project Name: <u>Industrial Park</u> Surface Elevation: <u>798.0'</u> Driller: <u>Mike Fetters</u> Project Type: <u>Geotechnical Investigation</u> Hole Number: <u>4</u> Depth <u>12.4'</u>	Project No.: <u>00-276</u> Location: <u>Cynthiana, Kentucky</u> Date Started: <u>12/12/00</u> Completed: <u>12/12/00</u> Logged by (Geologist): <u>James Zimmer</u> Depth to Water: _____ Depth to Water _____ Days after completion _____ ft.
--	---

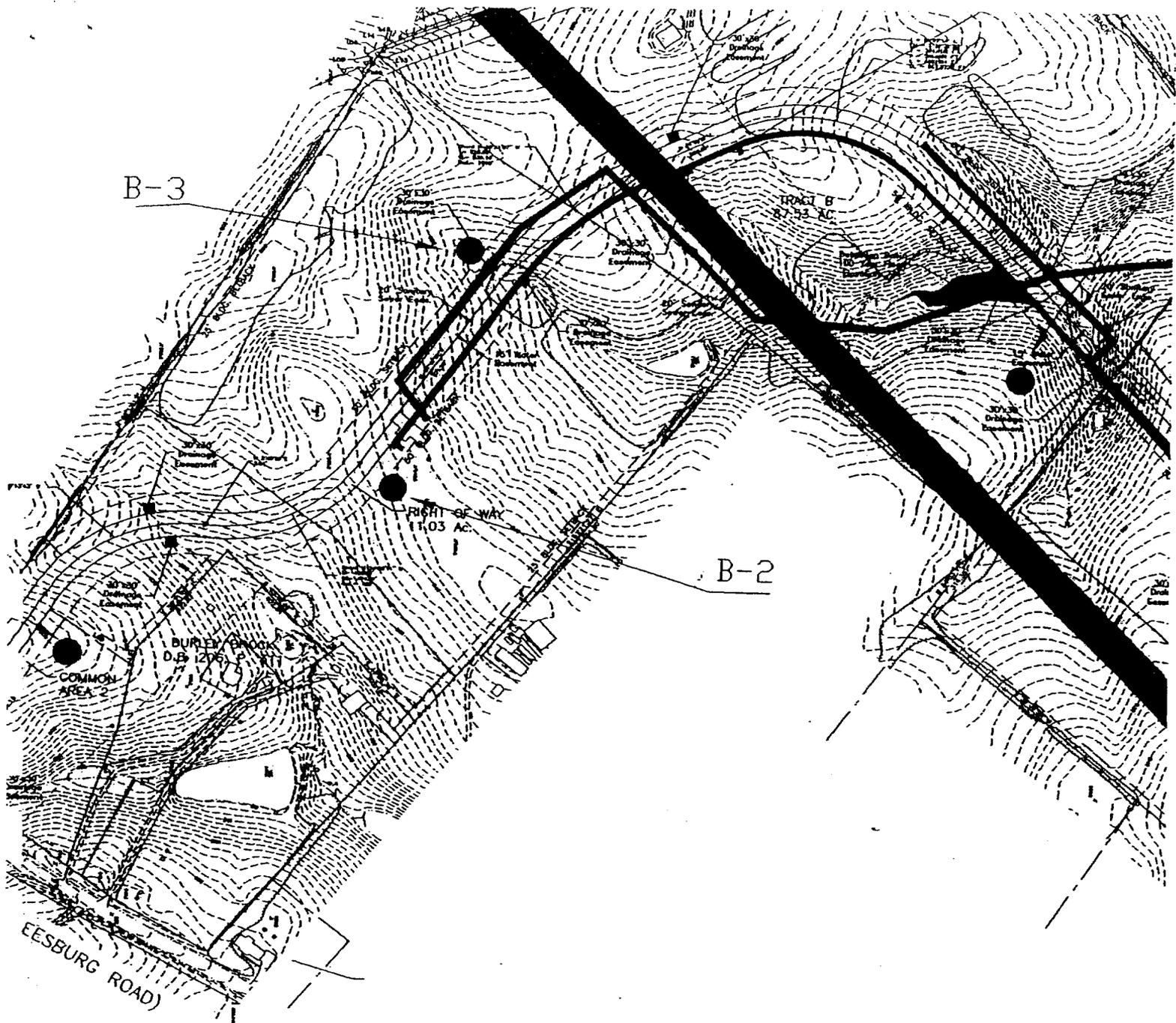
Lithology		Description Overburden	Sample No.	Depth	Rec. (Fl)	Blows	Type	Remarks
Elev.	Depth		RQD	Run	Rec. (Fl)	Rec. (%)	SDI	
	0							
	-							
5.6'	2.4'	AUGER REFUSAL						
	-							
	4	LIMESTONE (40%) AND CLAY (60%). LIMESTONE IS LIGHT TO MEDIUM GRAY, FINE GRAINED, THIN BEDDED, MODERATELY TO HEAVILY WEATHERED, MEDIUM HARD TO HARD.						CORE LOSS DUE TO WASHOUT OF CLAY SEAMS
	-							
	6							
6.6'	7.4'							
	-		0.0%	5.0'	2.0'	40.0		
1'	9.2'							
	10	LIMESTONE (50%) AND CALCAREOUS SHALE (50%). ROCK IS GRAY, FINE GRAINED, THIN BEDDED, WITH MODERATELY WEATHERED ZONES, MEDIUM TO HARD.						
	-							
15.6'	12.4'							
	-	CORE TERMINATED	0.0%	5.0'	3.3'	66.0		
	14							
	-							
	16							
	-							
	18							
	-							
	20							
	-							
	22							
	-							
	24							
	-							
	26							
	-							

**SUBSURFACE LOG**

County: Harrison  
 Project Name: Industrial Park  
 Face Elevation: 792.0'  
 Operator: Mike Fetters  
 Project Type: Geotechnical Investigation  
 Log Number: 5 Depth 13.2'

Project No.: 00-276  
 Location: Cynthiana, Kentucky  
 Date Started: 12/11/00 Completed: 12/11/00  
 Logged by (Geologist): James Zimmer  
 Depth to Water: \_\_\_\_\_  
 Depth to Water    Days after completion    ft.

Lithology		Description Overburden	Sample No.	Depth	Rec. (FL)	Blows	Type	
cy.	Depth	Rock Core	RQD	Run	Rec. (FL)	Rec. (%)	SDI	Remarks
	0	OVERBURDEN						
	—							
	2							
	—							
	3.2'	AUGER REFUSAL						
	4							
	—	LIMESTONE (50%) AND CALCAREOUS SHALE (50%) WITH MANY CLAY SEAMS. ROCK IS GRAY, FINE GRAINED, GENERALLY THIN BEDDED WITH MODERATE WEATHERING BETWEEN BEDS, HARD.						CORE LOSS DUE TO WASHOUT OF CLAY SEAMS
	6							
	—							
	8							
	8.2'		10.0%	5.0'	2.1'	42.0		
	—							
	10	LIMESTONE (50%) AND SHALE (50%) WITH A FEW CLAY SEAMS. LIMESTONE IS LIGHT TO MEDIUM GRAY, FINE GRAINED, CLASTIC, FOSSILIFEROUS, HARD. SHALE IS GRAY, FINE GRAINED, CALCAREOUS, MEDIUM HARD TO HARD.						
	—							
	12							
	—							
	13.2'		20.0%	5.0'	4.6'	92.0		
	14	CORE TERMINATED						
	—							
	16							
	—							
	18							
	—							
	20							
	—							
	22							
	—							
	24							
	—							
	26							
	—							



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# Your Cooperative Bylaws

## ARTICLE I: MEMBERSHIP

### Section 1. Requirements for Membership

Any person, partnership (but excluding partnerships controlled under Article I, Section 3-b), association, corporation, or body politic or subdivision thereof will become a member of Blue Grass Energy Cooperative Corporation, (hereinafter called the "Cooperative"), provided that he or it has first:

- a) made a written application for membership therein;
- b) agreed to purchase from the Cooperative electric energy as hereinafter specified, and be receiving electric service from the Cooperative;
- c) agreed to comply with and be bound by the Articles of Consolidation and Bylaws of the Cooperative and any rules and regulations adopted by the Board of Directors, and
- d) the legal capacity to enter into a binding contract, and

Notwithstanding that a person, partnership (but excluding partnerships controlled under Article I, Section 3-b), association, corporation, or body politic may have made application for more than one service connection as provided in Section 5 of this Article, no member shall have more than one membership in the Cooperative, and no membership in the Cooperative shall be transferable, except as provided in these Bylaws.

### Section 2. Member Certificates.

Membership in the Cooperative shall be evidenced by a membership certificate that shall be in such form and shall contain such provisions as shall be determined by the Board of Directors. No membership certificate shall be issued for less than the membership fee fixed in these Bylaws, nor until such membership fee has been fully paid.

### Section 3. Joint Membership.

Members who are husband and wife may constitute a joint membership and subject to their compliance with the requirements set forth in Section 1 of this Article, shall be accepted for such membership. The terms member, applicant, person, his and him, as used in these Bylaws shall be deemed to include a husband and wife and any provisions relating to rights and liabilities of membership, shall apply equally with respect to the holders of a joint membership. Without limiting the generality of the foregoing, the effect of the hereinafter specified actions by or in respect of the holders of a joint membership shall be as follows:

- a) the presence at a meeting of either or both shall be regarded as the presence of one member and shall constitute a

joint waiver of notice of the meeting;

- b) the vote of either separately or both jointly shall constitute one joint vote, or act, or one joint act; except, that each partner of a partnership (including a married couple) shall have one (1) vote each if each partner or spouse owns an interest individually or jointly with a partner in a property served by the cooperative and each partner or spouse is a separate member of the Cooperative.
- c) a waiver of notice signed by either or both shall constitute a joint waiver;
- d) notice to either shall constitute notice to both;
- e) expulsion of either shall terminate the joint membership;
- f) withdrawal of either shall terminate the joint membership;
- g) either but not both may be elected or appointed as an officer or director; provided that the candidate or appointee meets the qualifications of such office.

### Section 4. Conversion of Membership.

- a) A membership may be converted to a joint membership upon the marriage of the holder thereof. The outstanding membership certificate may be surrendered, and may be reissued by the Cooperative in such manner as may indicate the changed membership status.
- b) Upon the death of either spouse who is a party to the joint membership, such membership may be held solely by the survivor. The outstanding membership certificate may be surrendered, and may be reissued in such manner as shall indicate the changed membership status, provided, however, that the estate of the deceased shall not be released from any debts due the Cooperative.

### Section 5. Membership Fee and Other Deposits or Fees.

Effective January 1, 2002, any person, partnership, association, corporation or body politic who makes application to and receives electric service from the cooperative, shall pay a membership fee of \$25.00, provided, however, that an additional fee as determined by the Board shall be required for each additional service connection. All members in good standing with the former Blue Grass Energy Cooperative Corporation and with the former Harrison County Rural Electric Cooperative Corporation on December 31, 2001 shall become members of the new Blue Grass Energy Cooperative Corpo-

ration.

No former member of the Cooperative who is indebted to the Cooperative shall be readmitted to the membership except upon the payment of any outstanding account plus accrued interest thereon at the Kentucky legal rate in effect when such accounts first become overdue, compounded annually, plus any security deposit, service fee, facilities extension deposit or contribution in aid to construction.

### Section 6. Purchase of Electric Power and Energy; Power Production by Member; Application of Payments to All Accounts

The Cooperative shall use reasonable diligence to furnish its members with adequate and dependable electric service, although it cannot and therefore does not guarantee a continuous and uninterrupted supply thereof; and each member, for so long as such premises are owned or directly occupied or used by him, shall purchase from the Cooperative all electric power and energy purchased for use on all premises to which electric service has been furnished by the Cooperative pursuant to his membership, unless and except to the extent that the Board of Directors may in writing waive such requirement, and shall pay therefore at the times and in accordance with the rules, regulations, rate classifications and rate schedules established by the Board of Directors and, if in effect, in accordance with the provisions of any supplemental contract that may have been entered into.

Production of electric energy on such premises, regardless of the source thereof, by means of facilities which shall be interconnected with Cooperative facilities, shall be subject to appropriate regulations as shall be fixed from time to time by the Board of Directors. When the member has more than one service connection from the Cooperative, any payment by him for service from the Cooperative shall be deemed to be allocated and credited on a pro rata basis to his outstanding accounts for all such service connections, notwithstanding that the Cooperative's actual accounting procedures do not reflect such allocation and pro-ration.

### Section 7. Termination of Membership

- a) Any member may withdraw from membership upon compliance with such uniform terms and conditions as the Board of Directors may prescribe. The Board of Directors may, but only after due hearing if such is requested by the member, by the affirmative vote of not less than two-thirds (2/3) of all the members of the Board of Directors, expel any member who fails to comply with any of the provisions of the Articles of Consolidation, Bylaws, or Rules and Regulations adopted by the Board of Directors. Any expelled member may

# Your Cooperative Bylaws (continued)

be reinstated by vote of the Board of Directors or by vote of the members at any annual or special meeting. The membership of a member who, for a period of six (6) months after service is available to him, has not purchased electric energy from the Cooperative, or of a member who has ceased to purchase energy from the Cooperative, may be cancelled by resolution of the Board of Directors.

- b) Upon the withdrawal, death, cessation of existence or expulsion of a member, the membership of such member shall thereupon terminate. Termination of membership in any manner shall not release a member or his estate from any debts due the Cooperative.

## Section 8. Wiring of Premises; Responsibility therefore; Responsibility for Meter Tampering or Bypassing and for Damage to Cooperative Properties; Extent of Cooperative Responsibility; Indemnification

Each member shall cause all premises receiving electric service pursuant to his membership to become and to remain wired in accordance with the specifications of the National Electrical Code and any applicable state code or local government ordinances. Each member shall be responsible for and shall indemnify the Cooperative, its employees, agents and independent contractors against death, injury, loss or damage resulting from any defect in, or improper use or maintenance of such premises and all wiring and apparatus connected thereto or used thereon. Each member shall make available to the Cooperative a suitable site, as determined by the Cooperative, whereon to place the Cooperative's physical facilities for furnishing and metering electric service and at all reasonable times shall permit the Cooperative's authorized employees, agents and independent contractors to have access thereto safely and without interference from hostile dogs or any other hostile source for reading the meter, bill collecting and for inspection, maintenance, replacement, relocation, repair or disconnecting of such facilities. As partial consideration for service, each member shall be the Cooperative's bailee of such facilities and shall accordingly desist from interfering with, impairing the operation of, or causing damage to, such facilities, and shall use his best efforts to prevent others from so doing. In the event such facilities and their operation are interfered with, impaired or damaged by, the member, or by any other person on the premises, the member shall indemnify the Cooperative, its employees, agents and independent contractors against death, injury, loss or damage resulting there from, including, but not limited to the Cooperative's cost of repairing, replacing or relocating such facilities and its loss, if

any, of revenues resulting from the failure or defective functioning of its metering equipment. In no event shall the responsibility of the Cooperative for furnishing electricity extend beyond the point of delivery.

## Section 9. Access to Land and Premises

Without being paid compensation therefore each member shall grant and give to the Cooperative free access onto his, her or its land or premises for the purpose of placing, locating, building, constructing, operating, replacing, rebuilding, relocating, repairing, improving, enlarging, extending, and maintaining on, over or under such land and premises, or removing there from its electric distribution system, new or existing lines, wires, poles, anchors, and other necessary or appurtenant parts thereof provided, however, any extensions shall be located along existing exterior boundary lines and interior fence lines when feasible. Any unusual or excessive use of lands are to be compensated for, which compensation shall be voted upon by a majority vote of the Board of Directors. The Board of Directors, after due hearing, may expel from membership and/or discontinue electric service to any member who fails or refuses to comply with the provisions of this Bylaw.

## **ARTICLE II: RIGHTS AND LIABILITIES OF MEMBERS**

### Section 1. Non-Liability for Debts of the Cooperative

The private property of the members shall be exempt from execution or other liability for the debts of the Cooperative and no member shall be liable or responsible for any debts or liabilities of the Cooperative.

## **ARTICLE III: MEETING OF MEMBERS**

Section 1. Annual Meeting. The annual meeting of the members shall be held annually on a date set by the Board of Directors at such place within a county served by the Cooperative, as selected by the Board of Directors and which shall be designated in the notice of the meeting, for the purpose of reporting on the election of directors, passing upon reports for the previous fiscal year and transacting such other business as may come before the meeting. It shall be the responsibility of the Board of Directors to make adequate plans and preparations for the annual meeting. Failure to hold the annual meeting at the designated time shall not work a forfeiture or dissolution of the Cooperative.

### Section 2. Special Meetings.

Special meetings of the members may be called by resolution of the Board of Directors, or upon written request signed by a majority of the directors, or by ten per centum or more of all members, and it shall thereupon

be the duty of the Secretary to cause notice of such meetings to be given as hereinafter provided. Special meetings of the members may be held at any place within one of the counties served by the Cooperative as designated by the Board of Directors and shall be specified in the notice of the special meeting.

### Section 3. Notice of Members' Meetings.

Written or printed notice stating the place, day and hour of the meeting and, in case of a special meeting or an annual meeting at which business requiring special notice is to be transacted, the purpose or purposes for which the meeting is called, including an agenda, shall be delivered not less than ten (10) days or more than sixty (60) days before the date of the meeting, either personally or by mail, by or at the direction of the Secretary, or upon default in duty by the Secretary, by the persons calling the meeting, to each member. Such notice shall be deemed to be delivered when deposited in the United States mail, addressed to the member at the address as it appears on the records of the Cooperative with postage thereon prepaid. The failure of the member to receive notice of an annual or special meeting of the members shall not invalidate any action which may be taken by the members at such meeting. Notice published in Kentucky Living or any other Cooperative publication shall be adequate notice of member meetings.

No proposal shall be voted upon at the annual meeting unless it has been placed on the agenda at least 40 days prior to such meeting. Any legitimate proposal may be placed on the agenda by any member by filing a copy of the proposal with the Secretary within the time allowed with a request it be submitted to the Annual Meeting for consideration.

### Section 4. Quorum.

A quorum for the transaction of business at meeting of the members shall be the lesser of one half percent (1/2%) of the total number of members as reported on the Financial and Statistical Report of RUS Form 7 as of December 31 of the calendar year preceding the Annual Meeting, or two hundred and fifty (250) members present in person for the transaction of business at all meetings of the members. In case of a joint membership, the presence at a meeting of either husband, wife or both, shall be regarded as the presence of one member.

If less than a quorum is present at any meeting, a majority of members present may without further notice adjourn the meeting to another time and date not more than forty-five (45) days later and to any place in one of the counties in Kentucky within which the Cooperative serves; provided, that the Secretary shall notify any absent members of the

# Your Cooperative Bylaws (continued)

time, date, and place of such adjourned meeting by delivering notice, thereof as provided in Section 3 of this Article.

## Section 5. Voting.

a) Each member shall be entitled to only one vote upon each matter submitted to a vote at a meeting of the members. All questions shall be decided by vote of a majority of the members voting thereon in person, unless otherwise provided in the Bylaws, Articles of Consolidation, or other applicable law. There shall be no voting by proxy.

b) Except in director elections, any member qualified to vote on a matter submitted to the membership for vote, who has not been declared mentally disabled by a Court of competent jurisdiction, and who, on account of age, infirmity or illness, is not able to appear at the meeting at which the vote shall be taken, may vote in the following manner:

- 1) At least ten (10) days prior to the date of the meeting and prior to the close of normal business hours, he or she may present to any person in the administrative staff at the Cooperative headquarters, or at a district office, by mail or in person, his or her application for an absentee ballot containing a verified statement that his or her inability to appear at the meeting is due to age, infirmity, or illness.
- 2) Upon receipt of the application, the administrative staff person shall immediately mail to the member an absentee ballot, along with an envelope addressed to the Cooperative headquarters or district office, as the case may be, and a smaller, plain envelope.
- 3) The member shall mark the ballot, seal it in the smaller, plain envelope, place the plain envelope in the outer envelope addressed to the Cooperative, and mail it to the Cooperative headquarters, or district office, as the case may be. The member shall sign the outer envelope in order to validate the ballot.
- 4) Upon receipt of the return envelope, the administrative staff person shall verify the signature on the outer envelope to validate the ballot,

and shall then deposit the plain, inner envelope containing the ballot in the ballot box, or some other secure container, to be counted in the pending vote.

- 5) In order to be counted, the ballot shall be received by the administrative staff person by the close of business on the last business day prior to the date of the member vote.
- c) Notwithstanding any other provision of these Bylaws, all voting for nominees or candidates for director shall be exclusively by mail ballot personally marked by an eligible member and in compliance with the Bylaws. No cumulative voting shall be permitted as to election of the Board of Directors, but each member shall have the right to vote for one director in each district in which a director is to be elected.

## Section 6. Order of Business.

The order of business at the annual meeting of the members and, so far as possible, at all other meetings of the members, shall be essentially as follows, except as otherwise determined by the members at such meetings:

- 1) Report on the number of members present in person in order to determine the existence of a quorum.
- 2) Reading of the Notice of the Meeting and proof of the due publication or mailing thereof, or the waiver or waivers of notice of the meeting, as the case may be.
- 3) Reading of unapproved minutes of previous meetings of the members and the taking of necessary action thereon.
- 4) Presentation of reports of officers, directors, and committees.
- 5) Report on election of directors.
- 6) Agenda items filed under Section 3 of Article III.
- 7) Other information
- 8) Adjournment.

## ARTICLE IV: BOARD OF DIRECTORS

### Section 1. General Powers.

The business and affairs of the Cooperative shall be managed by a Board of Directors of not less than five (5) directors which shall exercise all the powers of the Cooperative except such as the Bylaws or the Articles of Consolidation of the Cooperative confer upon or reserve to the members. One director shall be elected from each of the districts

set forth in Section 2.

### Section 2. Districts.

The Cooperative shall be divided into ten (10) territorial districts according to a plat attached herewith and all Board of Directors or nominees for the office of director shall be members and residents of their respective districts, provided, however,

- 1) That each district shall have one (1) director, and
- 2) That the entire membership shall retain the right to nominate by petition and vote for directors in all districts.

### Section 3. Election and Tenure

All directors from the former Blue Grass Energy Cooperative Corporation and three (3) directors from the former Harrison County Rural Electric Cooperative Corporation shall continue to serve the remainder of the terms for which each was elected and until a successor has been elected at an annual meeting as set forth herein.

2002 - Districts No. 1, 4, 5 and 8

2003 - Districts No. 3, 7 and 9

2004 - Districts No. 2, 6 and 10

All directors elected at the expiration of above terms of office shall be elected for terms of three (3) years.

To comply with Section 279.080 of the Kentucky Revised Statutes, as amended by the 1982 Legislature, and to insure secrecy and anonymity of ballots cast in the election of directors, the election of directors shall be conducted by mail ballot as set forth in these Bylaws; provided, however, that if a nominee of the Nominating Committee is the only nomination for the position of director in a district and no nominating petitions have been filed with the Secretary as provided in these Bylaws, then the Secretary shall so certify and will so announce at the Annual Meeting and such nominee or nominees shall be deemed elected to the Board of Directors without the necessity of a mailed ballot. No write-in votes shall be permitted in election of directors.

The Secretary shall mail with the notice of the meeting a statement of the number of directors to be elected and showing separately the nominations made by the Committee or nomination and nominations made by petition, if any.

If a nominee of the Nominating Committee is the only nomination for the position of director in a district and no nominating petitions have been filed with the Secretary as provided in these Bylaws, then the Secretary shall so certify and will announce at the Annual Meeting and such nominee or nominees

# Your Cooperative Bylaws (continued)

shall be deemed elected to the Board of Directors without the necessity of a mailed ballot.

## Section 4. Qualifications.

No person shall be eligible to become or remain a member of the Board of Directors of the Cooperative who:

- a) is not a member in good standing, bona fide resident in the area served by the Cooperative, and a resident of the district for which he or she is elected; or
- b) does not receive electric service from the Cooperative; or
- c) has a financial interest in a competing enterprise or business, or energy source of any kind; or
- d) does not have the legal capacity to enter into a binding contract; or
- e) is an employee, former employee, or retired employee of the Cooperative; or an employee or former employee, or retired employee of the former Cooperative in the event of a consolidation
- f) is a close relative of an employee or director of the Cooperative
- g) has entered a plea of guilty to, or no contest to, or been convicted of, a felony.

No member of the Board of Directors may use his position on the Board for personal or political gain. Such action is expressly prohibited and may result in his removal from the Board.

Notwithstanding any of the foregoing provisions of this Section regarding close relative relationships, no incumbent director shall lose eligibility to remain a member of the Board of Directors or to be re-elected as a director if he/she becomes a close relative of another incumbent member of the Board of Directors or of a Cooperative employee because of marriage to which he was not a party.

"Close Relative" defined. As defined in these Bylaws, "close relative" means a person who by blood or in-law, including half, foster, step and adoptive kin, is either a spouse, child, grandchild, parent, grandparent, brother, sister, uncle, aunt, nephew, or niece of the principal.

When a membership is held jointly by a husband and wife, either one, but not both, may be elected as a member of the Board of Directors.

Nothing contained in this Section shall affect in any manner whatsoever the validity of any action taken at any meeting of the Board of

Directors.

## Section 4.01. Board Training and

### Development.

Directors are expected to gain and maintain the knowledge and skills necessary to function actively and effectively as members of the Board of Directors. Each member seated on the Board of Directors shall make an effort to become a Certified Director under Board Management Program of the National Rural Electric Cooperative Association within the first three-year term.

## Section 5. Nominations.

It shall be the duty of the Board of Directors to appoint, not less than fifty (50) days and not more than ninety (90) days before the date of a meeting of the members at which a report of the election of directors is to be made a committee on nominations consisting of not less than five (5) nor more than ten (10) members who shall be selected so as to give equitable representation on the committee to the geographical areas served or to be served by the Cooperative. No officer or member of the Board of Directors shall be appointed a member of such committee. The committee shall prepare and post at the principal office of the Cooperative at least forty-five (45) days before the meeting, a list of nominations for Board of Directors.

One half percent (1/2%) or more of the total number of consumers shown on the Financial and Statistical Report of RUS Form 7 as of December 31 of the calendar year preceding the election may make other nominations in writing over their signatures, printed names, and addresses by filing such nominations not more than ninety (90) days and not less than fifty (50) days prior to the meeting and the Secretary shall post the same at the same place where the list of nominations made by the committee is posted, if, after examination by the Provost, it is determined by said Provost that said petitions meet the requirements of the Bylaws, Articles of Consolidation, and the laws of the Commonwealth of Kentucky. In no event shall a member sign more than one petition for the nomination of a director from a district.

The date of the first working day not less than forty-five (45) days prior to the Annual Meeting shall be established as the certificate date which determines whether a member is in good standing and qualified for the purpose of signing a nominating petition and/or voting.

A member in good standing is any active member who is in compliance with the Bylaws, Rules and Regulations of the Cooperative, and Rules and Regulations of the Public Service Commission as of forty-five (45) days prior to the Annual Membership Meet-

ing. The Secretary shall deliver a list of members in good standing on the certification date to the Provost.

Any member, whose service is disconnected for any reason, will automatically become a nonvoting member until said member is reconnected and receiving electrical current.

## Section 6. Conduct of Elections.

The Board of Directors shall have the duty of naming a Provost in charge of director elections who shall have the responsibilities and duties regarding nominating petitions as well as votes and the counting of same. The duties of the Provost regarding nominating petitions and the conduct of elections shall be as follows:

1. The Provost of the election shall examine and audit the petition or petitions filed by candidates for election to the office of director to determine if the petition or petitions comply with the requirements of the Kentucky Revised Statutes, the Articles of Consolidation, and these Bylaws.
  2. The Provost is granted the power and authority to pass upon and determine the validity of the signatures, printed names, and address on the petition or petitions to determine if those signing are qualified members in good standing of the Cooperative and entitled to vote for the election of directors.
  3. If the Provost shall disapprove a signature, printed name, and/or address on a petition or petitions, he shall list same in writing giving the reason or reasons why signature, printed name, and/or address was not approved.
  4. The Provost shall determine if the required number of qualified voting members have signed the petition or petitions after having deducted from the petition or petitions the names disapproved by him because the names, signatures, printed names, and/or address on said petition or petitions fail to comply with the Kentucky Revised Statutes, the Articles of Consolidation of the Cooperative and these Bylaws. If a petition does not contain the required number of valid signatures, printed names, and addresses of members in good standing, then the Provost shall not certify to the Secretary the name of the nominee as on said petition as a candidate to be placed upon the official ballot.
- Upon completion of the examination and audit of the petition or petitions by the Provost, he shall certify to the Secretary of the Cooperative the name or names of those persons properly nominated by petition or petitions so that those nominated may be listed on the official ballot.
5. After receiving the nominations, the Secretary will contact those persons nominated

# Your Cooperative Bylaws (continued)

and give them an opportunity to furnish biographical information. This information is to be included with the official ballot which is sent to all the members as required by the Bylaws. The Secretary shall have the right to require the candidate to limit such biographical information to not more than two hundred (200) words.

After the Provost has certified the names of the candidates nominated by petition or petitions to be placed upon the official ballot, it shall be the responsibility of the Secretary to prepare a printed ballot of those persons duly nominated by the Committee and by nominating petition within fifteen (15) days after the nominating petitions are required to be posted. The printed ballot shall show separately those persons nominated by the Nominating Committee and those persons nominated by petition in alphabetical order by district and labeled in such a manner as to note which candidate appears on the ballot by nomination of the Nominating Committee and which appears on the ballot by nomination by petition.

It shall be the further responsibility of the Secretary to see that appropriate official ballots are mailed to each active and qualified member at his last address shown on the Cooperative records, not less than twenty (20) days prior to said Annual Meeting at which the results of said election are to be announced.

The official ballot shall be inscribed with instructions by the Secretary of the Cooperative as to how many candidates may be voted for on each ballot by the member and with instructions that all official ballots must be returned only by U. S. Mail and received not less than ten (10) days prior to the said Annual Meeting. Any ballot not received by mail or received after the time set for receipt thereof, shall not be counted.

Each official ballot shall be placed with an envelope labeled Ballot Envelope within an Official Return Envelope bearing postage prepaid, addressed to the Provost, Blue Grass Energy Cooperative, Post Office Box 990, Nicholasville, KY 40340-0990.

The official ballot shall be personally marked and voted by the eligible member and then placed in the Ballot Envelope and sealed. The sealed Ballot Envelope, with the official ballot enclosed, shall then be placed in the Official Return Envelope which is addressed to the Provost with postage prepaid. The Official Return Envelope shall then be signed by the member in the space provided thereon so it can be determined by the Provost prior to opening the Official Return Envelope whether the person signing the Official Return Envelope is an eligible voting

member of the Cooperative. The member shall then seal and mail the Official Return Envelope to the Provost.

All return envelopes shall be deposited in a locked Ballot Box or Boxes at the Nicholasville Post Office or other secure location as may be designated by the Provost.

6. In the event a voting member in good standing has his, her or its ballot inadvertently destroyed, or the Official Return Envelope inadvertently destroyed, or the cover envelope with the contents therein was not received by the voting member, then, upon the voting member having exhibited to the Provost his driver's license and/or a social security card, the Provost shall check the Cooperative's membership list to determine if he, she or it is a voting member in good standing.

The Provost shall then cause the voting member to execute an Affidavit before a Notary Public at the Office of the Provost, and, if the Provost approves, he may then and there deliver to the voting member a Return Envelope, a Ballot Envelope and a Ballot. However, no Affidavit, Official Return Envelope, Ballot Envelope and a Ballot shall be delivered by the Provost after 4:30 p.m., on the tenth day prior to the Annual Meeting.

7. The Board of Directors shall, at least thirty (30) days before any election of directors appoint an Election Committee. The Committee shall include the Provost and shall consist of an uneven number (including Provost) not less than five (5) members of the Cooperative who are not members of the Nominating Committee or existing Cooperative employees, agents, officers, directors or known candidates for director, and who are not close relatives or members of the same household thereof. In the event a protest or objection is filed concerning any election, such protest or objection must be filed during, or within three (3) business days following the adjournments of the meeting in which the voting is conducted. The Committee shall thereupon be reconvened, upon notice from the Provost, not less than three (3) days after such protest or objection is filed. The Committee shall hear evidence as is presented by the protestor(s) or objector(s), who may be heard in person, by counsel, or both, and any opposing evidence, and the Committee, by a vote of a majority of those present and voting, shall, within a reasonable time but not later than thirty (30) days after such hearing, render its decision, the result of which may be to affirm the election, to change the outcome thereof, or to set it aside. The Committee may not affirmatively act on any matter unless a majority of the Committee is present. The Committee's decision (as reflected by a majority of those actually present and voting) on all matters

covered by this section shall be final.

8. The duties of the Provost and Election Committee regarding votes and counting shall be as follows:

- a. At no later than 9:00 a.m. on the second day prior to the Annual Meeting of members, the Provost shall take the locked Ballot Box or Boxes containing the Return Envelopes and transfer the locked Ballot Box or Boxes to a location of his choosing.
- b. The Provost and Election Committee shall unlock the Ballot Box or Boxes and examine each Return Envelope to ascertain if it has been properly signed. Signatures on behalf of a corporation, partnership, church or other organization shall be presumed to be by a duly authorized officer, partner or agent of the organization, unless shown otherwise by written notice of the organization by the Provost prior to the count of the vote.
- c. Any and all Return Envelopes found by the Provost and Election Committee not to conform to the provisions and requirements of these Bylaws shall not be opened but shall immediately be placed in a locked Ballot Box or Boxes for rejected Return Envelopes which shall be retained by the Provost in safekeeping until sixty (60) days after the Annual Meeting.
- d. When the unopened Return Envelope is found by the Provost and Election Committee to be in conformity with the provisions and requirements of these Bylaws, the Provost and Election Committee shall see that the membership record is marked so as to indicate the member has voted. The Return Envelope shall then be placed in a locked Ballot Box for the accepted Return Envelopes.
- e. In the event another Return Envelope is found by the Election Committee to be from the same voting member, the Election Committee shall reject the second unopened Return Envelope, state the reason for the rejection and place it in the locked Ballot Box provided for any and all unopened Return Envelopes found not to conform to the provisions and requirements of the Bylaws.
- f. After all the Return Envelopes have been checked by the Provost

# Your Cooperative Bylaws (continued)

and Election Committee for approval or rejection and placed either in the locked Ballot Box or Boxes for accepted Return Envelopes or placed in locked Ballot Box or Boxes for rejected Envelopes, the Provost and Election Committee shall then open the accepted Return Envelopes and remove the unopened Ballot Envelopes therefrom and place same in a locked Ballot Box until all of said Return Envelopes have been opened. The Provost and Election Committee shall then open the locked Ballot Box or Boxes containing the unopened Official Ballot Envelopes and remove same from said Ballot Box or Boxes and open said Official Ballot Envelope and tabulate all valid votes cast on each Official Ballot. Counting of ballots shall be conducted solely by the Provost and Election Committee with the assistance of any personnel necessary for its work. Any nominee or anyone designated in writing by such nominee may be present in the counting room. No other person shall be present in the counting room except the Cooperative Attorney who may be present at any part of the election process.

In addition to the reasons stated elsewhere in Paragraph 7 of Section 6, the following Ballots shall not be counted:

1. A Ballot marked for more than one candidate in each district from which a director is to be elected;
2. Ballots other than the Official Ballot.

- g. Any Official Ballot deemed invalid by the Provost and Election Committee for reasons set forth in these Bylaws shall be placed in the locked Ballot Box or Boxes containing the rejected Return Envelopes.
- h. The Ballot Box or Boxes shall be kept locked at all times except when the Provost or Election Committee are present.
- i. If the counting of the Official Ballots has not been completed at the time of adjournment of the counting, all Official Ballots unopened and uncounted shall be kept in the locked Ballot Box or Boxes in the Provost's safekeeping until the counting of all Official Ballots is again begun in the presence of the Provost and Election Committee

and this procedure shall continue until all valid Official Ballots have been counted and tabulated.

- j. The Provost shall place all official and valid Ballots which have been counted in a locked Ballot Box and shall retain same unopened in safekeeping of the Provost for sixty (60) days after the date of the Annual Meeting.
- k. The Provost shall promptly, upon completion of the counting of the membership votes, certify in writing to the Secretary of the Board the names of the candidates and the number of votes received by each and shall also certify the names and addresses of the candidates receiving the highest number of votes taking into account the number of directors to be elected and the respective districts they are to represent. In case of any tie votes, drawing by lot by the candidates shall resolve any tie votes. The Secretary shall announce the election results at the Annual Meeting.
- l. After sixty (60) days have passed from the day of the Annual Meeting of members, the Provost shall deliver the Ballot Box or Boxes to the Secretary of the Cooperative.

## Section 7. Removal of Member of the Board of Directors by Members.

Any member may bring charges for cause against a member of the Board of Directors, and, by filing with the Secretary such charges in writing together with a petition signed by ten percentum or more of all the members, may request the removal of such member of the Board of Directors by reason thereof. For the purpose of this Section 7, "cause" shall be defined to mean malfeasance in office, that is, the commission of an act which is unlawful and affects, interrupts or interferes with the performance of official duties. Each page of the petition shall, in the forefront, thereof, state the name(s) and address(es) of the member(s) filing such charge(s), a verbatim statement of such charge(s) and the name(s) of the director(s) against whom such charge(s), is(are) being made. The petition shall be signed by each member in the same name as he is billed by the Cooperative and shall state the signatory's address as the same appears on such billings along with printed names(s), dates of birth and social security numbers. A statement of charge(s) verbatim, the name(s) of director(s) against whom the charge(s) have been made, of the member(s) filing the charge(s) and the purpose of the meeting

shall be contained in the notice of the meeting; provided, that the notice shall set forth (in alphabetical order) only twenty (20) of the names of the members filing one or more charges if twenty (20) or more members file the same charge(s) against the same director(s). Such director(s) shall be informed in writing of the charge(s) after they have been validly filed at least thirty (30) days prior to the meeting of the members at which the charge(s) are to be considered, and shall have an opportunity at the meeting to be heard in person by witnesses, by counsel or any combination of such and to present evidence in respect to the charge(s); and the person(s) bringing the charge(s) shall have the same opportunity, but must be heard first. The question of the removal of such director(s) shall, separately, for each if more than one has been charged, be considered and voted upon at such meeting; provided, that the question of removal of a director shall not be voted upon at all unless some evidence in support of the charge(s) against him shall have been presented during the meeting through oral statements, documents or, otherwise, with the ruling concerning same to be made by the chairman of the special meeting. A two-thirds (2/3) majority of members present at the meeting shall be required for removal of a director. The chairman of the said meeting shall be a licensed attorney appointed by the Board of Directors and the Cooperative shall compensate him for his services.

## Section 7.01. Removal of Directors for Absence.

Any board member who is absent from three consecutive regular meetings of the board, unless excused by the affirmative vote of a majority of the other board members, may be deemed to have vacated his office if so determined by the affirmative vote of a majority of the other board members.

## Section 8. Vacancies.

Vacancies occurring on the Board of Directors may be filled by the affirmative vote of the majority of the remaining members of the Board of Directors for the unexpired portion of the term, subject however to the terms of the Consolidation Agreement which shall supersede all terms and conditions of the Bylaws. The Board of Directors reserves the right to leave any vacancy or vacancies unfilled, and to alter the number of director districts.

## Section 9. Compensation.

The members of the Board of Directors shall not receive a salary for their services as such, except that the Board of Directors of the Cooperative may by resolution authorize a fixed sum which may include insurance benefits, for each day or portion thereof spent on Cooperative business, such as

# Your Cooperative Bylaws (continued)

attendance at meetings, conferences, and training programs or performing committee assignments when authorized by the Board of Directors. If authorized by the Board of Directors, directors may also be reimbursed for expenses actually and necessarily incurred in carrying out such Cooperative business or granted a reasonable per diem allowance by the Board of Directors in lieu of detailed accounting for some of these expenses. No director shall receive compensation for serving the Cooperative, in any other capacity, nor shall any close relative of a director receive compensation for serving the Cooperative, unless the payment and amount of compensation shall be specifically authorized by a vote of the members or the service by the director or his close relative shall have been certified by the Board of Directors as an emergency measure.

## ARTICLE V: MEETINGS OF THE BOARD

### Section 1. Regular Meetings.

A regular meeting of the Board of Directors shall be held without notice immediately after, and at the same place as, the Annual Meeting of the members. A regular meeting of the Board of Directors shall also be held monthly at such time and place within one of the counties served by the Cooperative as designated by the Board of Directors. Such regular monthly meeting may be held without notice other than such resolution fixing the time and place thereof.

### Section 2. Special Meetings.

Special meetings of the Board of Directors may be called by the Chairman of the Board of Directors or by a majority of directors, and it shall thereupon be the duty of the Secretary to cause notice of such meeting to be given as hereinafter provided. The Chairman or directors calling the meeting shall fix the time and place for the holding of the meeting which shall be held in one of the counties in Kentucky within which the cooperative serves, unless all directors consent to its being held in some other place in Kentucky or elsewhere. Special meetings, upon proper notice as provided in these Bylaws, may also be held via telephone conference call, without regard to the actual location of the directors at the time of such telephone conference meeting, if all directors consent thereto.

### Section 3. Notice of Board Meetings.

Written notice of the time, place and purpose of any special meeting of the Board of Directors shall be delivered to each director either personally or by mail, by or at the direction of the Secretary, or upon a default in duty by the Secretary, by the Chairman or the director calling the meeting. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail ad-

ressed to the director at his address as it appears on the records of the Cooperative, with postage thereon prepaid, at least five (5) days before the date set for the meeting.

### Section 4. Quorum.

A majority of the Board of Directors shall constitute a quorum, provided, that if less than such majority of the Board of Directors is present at said meeting, a majority of the Board of Directors present may adjourn the meeting from time to time; and provided further, that the Secretary shall notify any absent directors of the time and place of such adjourned meeting. The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, except as otherwise provided in these Bylaws.

## ARTICLE VI: OFFICERS

### Section 1. Number.

The officers of the Cooperative shall be a Chairman of the Board, Vice Chairman of the Board, Secretary and Treasurer, each of whom shall be elected by the Board. Such other officers and assistant officers as may be deemed necessary may be elected or appointed by the Board of Directors. The offices of Secretary and Treasurer may be held by the same person.

### Section 2. Election and Term of Office.

The Board of Directors of the consolidated cooperative shall elect officers at a meeting of the Board of Directors to be held immediately after each Annual Meeting. A vacancy in any office shall be filled by the Board of Directors for the unexpired portion of the term.

### Section 3. Removal of Officers.

The Board of Directors may remove any officer elected or appointed by the Board of Directors for cause whenever in its judgment the best interest of the Cooperative will be served thereby. For the purpose of this Section 3, "cause" shall be defined to mean malfeasance in office, that is, the commission of an act which is unlawful and which affects, interrupts or interferes with the performance of official duties. The officer against whom such charges have been brought shall be informed in writing of the charges at least thirty (30) days prior to the Board Meeting at which the charges are to be considered, and shall have an opportunity at the meeting to be heard in person or by counsel and to present evidence in respect of the charges; the director or directors bringing the charges against him shall have the same opportunity. The question of the removal of the officer shall be decided by a majority vote of the members of the Board of Directors present and voting.

### Section 4. Chairman.

The Chairman of the Board shall:

- a) be the principal officer of the Cooperative and unless otherwise determined by the members of the Board of Directors, shall preside at all meetings of the members and the Board of Directors;
- b) sign any deeds, mortgages, deeds of trust, notes, bonds, contracts or other instruments authorized by the Board of Directors to be executed, except in cases in which the signing and execution thereof shall be expressly delegated by the Board of Directors or by these Bylaws to some other officer or agent of the Cooperative, or shall be required by law to be otherwise signed or executed; and
- c) in general, perform all duties incident to the office of Chairman and such other duties as may be prescribed by the Board of Directors from time to time.
- d) while presiding at a meeting of the members or of the Board of Directors, choose to vacate the chair, and the Vice-Chairman is absent or chooses not to preside, the Chairman shall designate another person as Chairman for any part or all of the remainder of the meeting.

### Section 5. Vice-Chairman.

In the absence of the Chairman, or in the event of his inability or refusal to act, the Vice-Chairman shall perform the duties of the Chairman, and who so acting shall have all the powers of and be subject to all the restrictions upon the Chairman. The Vice-Chairman shall also perform such other duties as from time to time may be assigned to him by the Board of Directors.

### Section 6. Secretary.

The Secretary shall be responsible for:

- a) keeping, or causing to be kept, the minutes of meetings of the members and of the Board of Directors in books provided for that purpose;
- b) seeing that all notices are duly given in accordance with these Bylaws or as required by law;
- c) the safekeeping of the corporate books and records and the Seal of the Cooperative and affixing the Seal of the Cooperative to all Certificates of Membership prior to the issue thereof, and to all documents, the execution of which on behalf of the Cooperative under its Seal is duly authorized with the provisions of these Bylaws.

# Your Cooperative Bylaws (continued)

- d) keeping, or causing to be kept, a register of the names and post office addresses of all members;
- e) keeping, or causing to be kept, on file at all times a complete copy of the Articles of Consolidation and Bylaws of the Cooperative containing all amendments thereto (which copy shall always be open to the inspection of any member) and at the expense of the Cooperative, furnishing a copy of the Bylaws and all amendments thereto to any member upon request; and
- f) in general, performing all duties incident to the office of Secretary and such other duties as from time to time may be assigned to him by the Board of Directors.

## Section 7. Treasurer.

The Treasurer shall be responsible for:

- a) Custody of all funds and securities of the Cooperative;
- b) the receipt of and the issuance of receipts for all monies due and payable to the Cooperative and for the deposit of all such monies in the name of the Cooperative in such bank or banks as shall be selected in accordance with the provisions of these Bylaws; and
- c) the general performance of all the duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him by the Board of Directors.

## Section 8. Delegation of Secretary's and Treasurer's Responsibilities.

Notwithstanding the provisions of the duties, responsibilities and authorities of the Secretary and Treasurer hereinbefore provided in Sections 6 and 7, the Board of Directors by resolution may, except as otherwise limited by law, delegate, wholly or in part, the responsibility and authority for, and the regular or routine administration of, one or more of each such officers' duties to be one or more agents, other officers or employees of the Cooperative who are not directors. To the extent that the Board of Directors does so delegate the duties, responsibility, or authority of such officer, that officer shall be released from such duties, responsibilities and authorities.

## Section 9. President and CEO.

The Board of Directors may appoint a President and CEO who may be, but who shall not be required to be, a member of the Cooperative. The President and CEO shall perform the duties of Chief Executive Officer and shall exercise such authority as the Board of Directors may from time to time

vest in him.

## Section 10. Bonds of Officers.

The Board of Directors in its discretion may require the Treasurer and any other officer or agent of the Cooperative charged with responsibility for the custody of any of its funds or property to be bonded in such sum and with such surety as the Board of Directors may determine. The costs of all such bonds shall be borne by the Cooperative.

## Section 11. Compensation.

The powers, duties and compensation of officers, agents and directors shall be fixed by the Board of Directors subject to the provisions of these Bylaws with respect to compensation of a director.

## Section 12. Reports.

The officers of the Cooperative shall submit at each Annual Meeting of the members, reports covering the business of the Cooperative for the previous fiscal year. Such reports shall set forth the condition of the Cooperative at the close of such fiscal year.

## Section 13. Indemnification of Directors, Officers, Employees and Members of Board Committees.

Every present or past director, officer, employee, or member of a board committee of the Cooperative shall be indemnified by the Cooperative against all judgments, penalties, fines, settlements and reasonable expenses, including legal fees, incurred by him as a result of or in connection with any threatened, pending or completed civil, criminal, administrative or investigative proceeding to which he may be made a party of by reason of his acting or having acted in his official capacity as a director, officer, employee or member of a board committee of the Cooperative, or in any other capacity he may hold at the request of the Cooperative, as its representative in any affiliated organization, subject to the following conditions:

1. Such director, officer, employee, or member of a board committee must have conducted himself in good faith (and reasonably believed his conduct was in the best interests of the Cooperative), and, in the case of criminal proceedings, he (additionally) must have had no reasonable cause to believe that his conduct was unlawful. When acting in his official capacity, he must have reasonably believed that his conduct was in the best interests of the Cooperative, and when acting in any other capacity, he must have reasonably believed that his conduct was at least not opposed to the best interest of the Cooperative.

2. If the proceeding was brought by or on behalf of the Cooperative, however, indemnification shall be made only with respect to reasonable expenses referenced above. No indemnification of any kind shall be made in any such proceeding in which the director, officer, employee, or member of a board committee shall have been adjudged liable to the Cooperative, except that no professional employee shall be liable to the Cooperative for any losses occasioned by his errors or omissions made in his official capacity with the Cooperative unless such losses were the result of his gross negligence or willful misconduct.

3. In no event, however, will indemnification be made with respect to any described proceeding which charges or alleges improper personal benefit to a director, officer, employee, or member of a board committee where liability is imposed upon him on the basis of the receipt of such improper personal benefit.

4. In order for any person to receive indemnification under this bylaw, he shall vigorously assert and pursue any and all defenses to those claims, charges or proceedings covered hereby which are reasonable and legally available and shall fully cooperate with the Cooperative or any attorneys involved in the defense of any such claim, charges, or proceedings.

No indemnification shall be made in any specific instance until it has been determined by the Cooperative that indemnification is permissible in that specific case under the standards set forth herein and that the expenses claimed are reasonable. These two determinations shall be made by a majority vote of at least a quorum of the Board of Directors consisting solely of directors who were not parties to the proceeding. If such a quorum cannot be obtained, a majority of at least a quorum of the Board of Directors, including directors who are parties, shall designate a Board Committee which shall consist solely of three or more directors who are not parties to the proceeding, and such Committee shall make said determinations by majority vote. If it is not possible to make said determinations by either of the above methods, then a special legal counsel selected by a majority vote of at least a quorum of the Board of Directors, including directors who may be parties, shall make said determinations. However, in making such determinations the termination of any proceeding by judgment, order, settlement, conviction, or

# Your Cooperative Bylaws (continued)

upon plea of nolo contendere or its equivalent shall not, in and of itself, be conclusive that the person did not meet the standards set forth herein.

The reasonable expenses, as shall be determined above that have been incurred by a director, officer, employee, or member of a board committee who has been made a party to a proceeding as defined herein may be paid or reimbursed in advance upon a majority vote of a quorum of the full Board of Directors, including those who may be a party to the proceedings. Provided, however, that such director, officer, employee, or member of a board committee shall have provided the Cooperative with a written affirmation under oath that he in good faith believes that he has met the standards of conduct contained herein and a written undertaking that he shall repay any amounts advanced with interest accumulated at the legal rate if it is ultimately determined that he has not met such standards of conduct. In addition to the indemnification provided herein, the Board of Directors shall, as part of the ordinary course of business of the Cooperative, direct that insurance or self-funded liability protection shall be purchased or provided, to the extent reasonably practical, by the Cooperative that would protect it, its directors, officers, employees, or members of board committees against liabilities and reasonable expenses arising out of the performance of their duties for the Cooperative.

## ARTICLE VII: NON-PROFIT OPERATION

### Section 1. Interest or Dividends on Capital Prohibited.

The Cooperative shall at all times be operated on a Cooperative non-profit basis for the mutual benefits of its patrons. No interest or dividends shall be paid or payable by the Cooperative on any capital furnished by its patrons, except as required by law.

### Section 2. Patronage Capital in Connection with Furnishing Electric Energy.

In the furnishing of electric energy the Cooperative's operations shall be so conducted that all patrons, members and non-members alike, will through their patronage, furnish capital for the Cooperative. In order to induce patronage and to assure that the Cooperative will operate on a non-profit basis, the Cooperative is obligated to account on a patronage basis to all its patrons, members and non-members alike, for all amounts received and receivable from the furnishing of electric energy in excess of operating costs and expenses properly chargeable against the furnishing of electric energy. All such amounts in excess of operating costs and expenses at the moment of receipt by the Cooperative are received with the understanding that they are furnished by the

patrons, members and non-members alike, as capital. The Cooperative is obligated to allocate credits to a capital account for each patron all such amounts in excess of operating costs and expenses. The books and records of the Cooperative shall be set up and kept in such a manner that at the end of each fiscal year, the amount of capital, if any, so furnished by each patron is clearly reflected and credited in an appropriate record to the capital account of each patron. All such amounts credited to the capital account of any patron shall have same status as though they had been paid to the patron in cash in pursuance of a legal obligation to do so and the patron has then furnished the Cooperative corresponding amounts for capital.

All other amounts received by the Cooperative from its operations in excess of costs and expenses shall, insofar as permitted by law, be (a) used to offset any losses incurred during the current or any prior fiscal year and (b) to the extent not needed for that purpose, allocated to its patrons on a patronage basis and any amount so allocated shall be included as part of the capital credited to the accounts of patrons, as herein provided.

In the event of dissolution or liquidation of the Cooperative, after all outstanding indebtedness of the Cooperative shall have been paid, outstanding capital credits shall be retired without priority on a pro-rata basis before any payments are made on account of property rights of members, provided, that insofar as gains may be realized from the sale of any appreciated asset, such gains shall be distributed to all persons who were patrons during the period the asset was owned by the Cooperative in proportion to the amount of business done by such patrons during that period, insofar as is practicable, as determined by the Board of Directors before any payments are made on account of property rights of members.

If, at any time prior to dissolution or liquidation, the Board of Directors shall determine that the financial condition of the Cooperative will not be impaired thereby, the capital credited to patrons' accounts may be retired in full or in part. After January 1, 1998, and thereafter, the Board of Directors shall determine the method, basis, priority and order of retirement, if any, for all amounts furnished as capital. Provided, however, that the Board of Directors shall have the power to adopt rules providing for the separate retirement of capital credited to the accounts of patrons and to descendant's estates which correspond to capital credited to the account of the Cooperative by any organization furnishing services to the Cooperative (including power service to cooperative).

Such rules shall:

- a) establish a method for determining the various portions of capital credited to each patron for each applicable fiscal year;
- b) provide identification on the Cooperative's books of the various portions of capital credited to the cooperative's patrons;
- c) provide for appropriate notification to patrons with respect to various portions of capital credited to their accounts, and
- d) preclude a general retirement of the various portions of capital credited to patrons for any fiscal year prior to the general retirement of other capital credited to patrons for the same year or of any capital credited to patrons for any prior fiscal year.

Capital credited to the account of each patron shall be assignable only on the books of the Cooperative pursuant to written instruction from the assignor and only to successors in interest or successors in occupancy in all or part of such patron's premises served by the Cooperative unless the Board, acting under policies of general applications, shall determine otherwise.

Notwithstanding any other provision of the Bylaws, the Board of Directors at its discretion, shall have the power at any time upon the death of any patron, a natural person, if the legal representatives of his estate shall request in writing that the capital credited to any such patron be retired prior to the time such capital would otherwise be retired under the provisions of these Bylaws, to retire capital credited to any such patron immediately upon such terms and conditions as the Board of Directors, acting under policies of general applications, and the legal representatives of such patron's estate shall agree upon; provided, however, that the financial condition of the Cooperative will not be impaired thereby; and provided, further that no payment of capital credits to the estate of a deceased member shall be made except to the extent said credits represent receipts in cash to the Cooperative.

The patrons of the Cooperative, by dealing with the Cooperative, acknowledge that the terms and provisions of the Articles of Consolidation and Bylaws shall constitute and be a contract between the Cooperative and each patron, and both the Cooperative and the patrons are bound by such contract, as fully as though each patron had individually signed a separate instrument containing such terms and provisions. The provisions of this Article of the Bylaws shall be called to the attention of each patron of the Cooperative by posting in a conspicuous place in the Cooperative's office.

# Your Cooperative Bylaws (continued)

## ARTICLE VIII: FINANCIAL OBLIGATION

### Section 1. Bonds, Notes, Debentures, Certificates or Other Evidence of Indebtedness.

The Cooperative may issue its obligations and pledge its future revenues for the payment thereof. The obligations may be in the form of bonds, notes, debentures, interim certificates or other evidence of indebtedness. The obligations shall be authorized by the Board of Directors by a resolution which shall fix the dates of issuance and maturity, the rate and time of payment of interest, and denominations, the form (either coupon or registered), the registration privileges, the manner of execution, the place and medium of payment and the terms of redemption. Any limitation as to interest or term of maturity otherwise provided by the laws of Kentucky shall not be applicable to obligations issued by the Cooperative as provided in Kentucky Revised Statutes, Chapter 279.

### Section 2. Sell, Lease, or Dispose of Property.

Except as provided in Kentucky Revised Statutes 279.090, 279.120 and 279.130 and in Section 3 of this Article, the Cooperative may not sell, lease or otherwise dispose of any of its property or dissolve the Cooperative unless the Board of Directors is authorized so to do by a two-thirds (2/3) vote of the total membership. Due notice shall be given to all members of the proposed sale, lease or other disposition of such property. The Board of Directors, without authorization by the members, shall have full power and authority to authorize the execution and delivery of a mortgage or mortgages or a deed or deeds of trust upon, or the pledging or encumbering of any or all of, the property, assets, rights, privileges, licenses, franchises, and permits of the Cooperative, whether acquired or to be acquired, and wherever situated, as well as the revenues and income therefrom, upon such terms and conditions as the Board of Directors shall determine, to secure any obligation of the Cooperative, any provisions of the Articles of Consolidation or Bylaws of the Cooperative notwithstanding.

### Section 3. Disposition of Properties and Assets.

1. Supplementary to the first sentence of Section 2 of this Article, and any other applicable provisions of law or these Bylaws, no sale, lease, lease-sale, exchange, transfer or other disposition of any of the Cooperative's properties and assets shall be authorized except in conformity with the following:
2. If the Board of Directors look with favor upon any proposal for such

sale, lease, lease-sale exchange, transfer or other disposition, it shall first cause three (3) independent, nonaffiliated appraisers, expert in such matters, to render their individual opinions as to the value of the Cooperative with respect to such a sale, lease, lease-sale, exchange, transfer or other disposition and as to any other terms and conditions which should be considered.

3. If the Board of Directors, after receiving such appraisals (and other terms and conditions which are submitted, if any) determines that the proposal should be submitted for consideration by the members, it shall first give every other electric cooperative corporately sited and operating in Kentucky (which has not made such an offer for such sale, lease, lease-sale, exchange, transfer or other disposition) an opportunity to submit competing proposals. Such opportunity shall be in the form of a written notice to such electric cooperative, which notice shall be attached to a copy of the proposal which the Cooperative has already received and copies of the respective reports of the three (3) appraisers. Such electric cooperatives shall be given not less than thirty (30) days during which to submit competing proposals, and the actual minimum period within which proposals are to be submitted shall be stated in the written notice given to them.

If the Board of Directors then determines that favorable considerations should be given to the initial or any subsequent proposal which has been submitted to it, it shall adopt a resolution recommending the sale and directing the submission of the proposal to a vote of the members at a duly held member meeting, and shall call a special meeting of the members for consideration thereof and action thereon, which meeting shall be held not sooner than ninety (90) days after the giving of such notice to the members, provided, that consideration and action by the members may be given at the next annual member meeting if the Board of Directors so determines and if such Annual Meeting is held not sooner than ninety (90) days after the giving of such notice.

4. Any one percent (1%) or more of

the total number of consumers shown on the Financial and Statistical Report of RUS Form 7 as of December 31 of the calendar year preceding, by so petitioning the Board of Directors not less than twenty (20) days prior to the date of special or annual meeting, may cause the Cooperative, with the cost to be borne by the Cooperative, to mail to all members any opposing or alternative positions which they may have to the proposals that have been submitted or any recommendations that the Board of Directors has made.

5. The provisions of this Section shall not apply to a sale, lease, lease-sale, exchange, transfer or other disposition to one or more other electric cooperatives or if the substantive or actual legal effect thereof is to merge or consolidate with such other one or more electric cooperatives.
6. Distribution of surplus assets on dissolution. Upon the Cooperative's dissolution, any assets remaining after all liabilities or obligations of the Cooperative have been satisfied and discharged shall, to the extent practicable as determined by the Board of Directors, not inconsistently with the provisions of the third paragraph of Article VII, Section 2 of these Bylaws, be distributed without priority, but on a patronage basis among all persons who are members of the Cooperative. Provided, however, that, in the judgment of the Board of Directors the amount of such surplus is too small to justify the expenses of making such distribution, the Board of Directors may, in lieu thereof, donate, or provide for the donation of, such surplus to one or more non-profit charitable or educational organizations that are exempt from Federal income taxation.

### Section 4. Property Sales Without Member's Authority.

The Board of Directors may sell any of the following property without authority from the members:

1. property that is not necessary in operating and maintaining the system, but sales of such property shall not in any one year exceed ten percent (10%) in value of all the property of the corporation other than merchandise and property acquired for resale;

# Your Cooperative Bylaws (continued)

2. services and electric energy;
3. property acquired for resale; and
4. merchandise.

## ARTICLE IX: SEAL

The Corporate seal of the Cooperative shall have inscribed thereon the name of the Cooperative and the words "Corporate Seal, Kentucky".

## ARTICLE X: FINANCIAL TRANSACTIONS

### Section 1. Contracts.

Except as otherwise provided in these Bylaws, the Board of Directors may authorize any officer or officers, agent or agents to enter into any contract or execute and deliver any instrument in the name and on behalf of the Cooperative, and such authority may be general or confined to specific instances.

### Section 2. Checks, Drafts, Etc.

All checks, drafts or other orders for the payment of money, and all notes, bonds or other evidences of indebtedness issued in the name of the Cooperative shall be signed and/or countersigned by such officer or officers, agent or agents, employee or employees of the Cooperative and in such manner as shall from time to time be determined by resolution of the Board of Directors.

### Section 3. Deposits.

All funds except petty cash of the Cooperative shall be deposited from time to time to the credit of the Cooperative in such bank or banks as the Board of Directors may select.

### Section 4. Change in Rates.

Written notice shall be given to the Administrator of the Rural Utilities Service of the United States of America not less than ninety (90) days prior to the date upon which any proposed change in the rates charged by the Cooperative for electric energy becomes effective.

### Section 5. Fiscal Year.

The fiscal year of the Cooperative shall begin on the first day of January of each year and shall end on the thirty-first day of December of the same year.

## ARTICLE XI: MISCELLANEOUS

### Section 1. Waiver of Notice.

Any member or director may waive in writing any notice of a meeting required to be given by these Bylaws. The attendance of a member or director at such meeting shall constitute a Waiver of Notice of such meeting by such member or director, except in case a member or director shall attend a meeting for the expressed purpose of objecting to the

transaction of any business on the grounds that the meeting has not been lawfully called or convened.

### Section 2. Policies, Rules and Regulations.

The Board of Directors shall have power to make and adopt such policies, rules and regulations, not inconsistent with the law, the Articles of Consolidation or these Bylaws, as it may deem advisable for the management of the business and affairs of the Cooperative.

### Section 3. Accounting System and Reports.

The Board of Directors shall cause to be established and maintained a complete accounting system which, among other things, subject to the laws of the Commonwealth of Kentucky and the rules and regulations of any regulatory body thereof, shall conform to such system of accounts as may from time to time be designated by the Administrator of the Rural Utilities Service of the United States of America. The Board of Directors shall also after the close of each fiscal year cause to be made by a certified public accountant a full and complete audit of the accounts, books and financial condition of the Cooperative as of the end of such fiscal year. A report of such audit shall be available to the members at the corporate offices.

### Section 4. Area Coverage.

The Board of Directors shall make diligent effort to see that electric service is extended to all unserved persons within the Cooperative service area who (a) desire such service and (b) meet all reasonable requirements established by the Cooperative as a condition of such service.

### Section 5. Computation of Time.

In computing any period of time prescribed or allowed by these Bylaws, the date of the act or event after which the designated period of time begins to run is not to be included. The last day of the period so computed is to be included, unless it is a Saturday, a Sunday or a legal holiday, in which event the period runs until the end of the next day which is not a Saturday, a Sunday or a legal holiday. When the period of time prescribed or allowed is less than seven (7) days, intermediate Saturdays, Sundays and legal holidays shall be excluded in the computation.

## AMENDMENTS

These Bylaws may be altered, amended or repealed by the affirmative vote of not less than two-thirds (2/3) of all voting directors present at any regular or special meeting, provided the notice of such meeting shall have contained a copy of the proposed alteration, amendment or repeal; however, such notice and copy of proposed alteration,

amendment or repeal, may be waived as provided in Article XI, Section 1, of these Bylaws.

## ARTICLE XIII: RULES OF ORDER

Parliamentary procedure at all meetings of the members, of the Board of Directors, of any Committee provided for in these Bylaws and of any other committee of the members or directors which may from time to time be duly established shall be governed by Robert's Rules of Order, except to the extent such procedure is otherwise determined by law or by the Cooperative's Articles of Consolidation or Bylaws.

Adopted: January 1, 2002

Last Revision: June 10, 2004

# Board Districts

**District 1** – Bound on the north by Catnip Hill Rd. from US 68 to US 27, then north along US 27 to Man O'War Blvd. Then follow Man O'War Blvd. to Armstrong Mill Rd., then follow Armstrong Mill Rd. to DeLong Rd. Bound on the east by DeLong Rd. from Armstrong Mill to Tates Creek Rd, then follow Tates Creek Rd. to Spears. Bound on the South by KY 169 from Spears to US 27 business, then follow US 27 business to KY 29, then follow KY 29 to US 68. Bound on the West by US 68.

**District 2** – Bound on the east by I – 75. Bound on the south by the territorial boundary approved by the Public Service Commission ( approved territorial boundary). Bound on the west and north by the Kentucky River from High Bridge to Valley View, then follow KY 169 to Spears, then follow Tates Creek Rd. to DeLong Rd., then follow DeLong Rd. to Armstrong Mill Rd., then follow Armstrong Mill Rd. to Kenesaw, then follow Kenesaw to Buckhorn, then follow Buckhorn to Man O'War Blvd., then north on Man O'War Blvd. to the approved territorial boundary.

**District 3** – Bound on the west by I – 75. Bound on the north, east, and south by the approved territorial boundary.

**District 4** – Bound on the north by the Anderson – Mercer County line from US 127 to the Kentucky River, then follow the Kentucky River to the Woodford – Jessamine County line, then follow the county line to KY 169, then follow KY 169 to US 68, then south along US 68 to KY 29, then follow the south boundary of district 1. Bound on the east by KY 169 from Spears to the Kentucky River. Bound on the south by the Kentucky River to High Bridge, then follow the south Mercer County line. Bound on the west by US 127.

**District 5** – Bound on the north by the Franklin – Anderson County line from KY 151 to the Kentucky River, then follow the Franklin – Woodford County line to the approved territorial boundary, then follow the approved territorial boundary line. Bound on the east by the approved territorial boundary. Bound on the south by Man O' War Blvd. from US 25 to Buckhorn, then follow Buckhorn to Kenesaw, then follow Kenesaw to Armstrong Mill Rd., then follow Armstrong Mill Rd. to Man O'War Blvd., then follow Man O' War Blvd. to US 27, then follow US 27 south to Catnip Hill Rd., then follow Catnip Hill Rd. to US 68, then follow US 68 south to KY 169, then follow KY 169 to the Woodford – Jessamine County line, then follow the county line to the Kentucky River, then follow the Kentucky River to the Anderson – Mercer County line, then follow the county line to US 127. Bound on the west by US 127 from the Anderson – Mercer County line to US 127 Bypass, then follow US 127 Bypass to KY 151, then follow KY 151 to the Franklin –

Anderson County line.

**District 6** – Bound on the north by KY 44, from Mt. Eden to US 127 Bypass. Bound on the east by US 127 bypass from KY 44 to US 127, then follow US 127 to the Mercer – Boyle County line. Bound on the south by the Mercer – Boyle County line to the Washington County line, then follow the south Washington County line. Bound on the west by the approved territorial boundary.

**District 7** – Bound on the north, east and west by the approved territorial boundary. Bound on the south by the Shelby – Spencer County line to Mt. Eden, then follow KY 44 to US 127 Bypass, then follow US127 Bypass to KY 151, then follow KY 151 to the Franklin County line, then following the southeast Franklin County line to Scott County.

**District 8** – Includes all service area in the counties of Pendleton County, Bracken County, and Robertson County. This district has approximately 2627 members.

**District 9** – Includes all the service area Grant County and Scott County. It also includes the service area of Harrison County west of U.S. 27 to the county line. This district has approximately 3328 members.

**District 10** – Includes the service area in all of Nicholas County and Bourbon County. It also includes the service area in Harrison County east of U.S. 27 to the county line. This district has approximately 3441 members.

## Current Directors

**E.A. "Ned" Gilbert, Berea,**  
Chairman, District 3

**Jody Hughes, Lawrenceburg,**  
Vice Chairman, District 6

**Richard Crutcher, Lawrenceburg,**  
Secretary, District 5

**Zeb Blankenship, Keene**  
District 1

**Danny G. Britt, Richmond**  
District 2

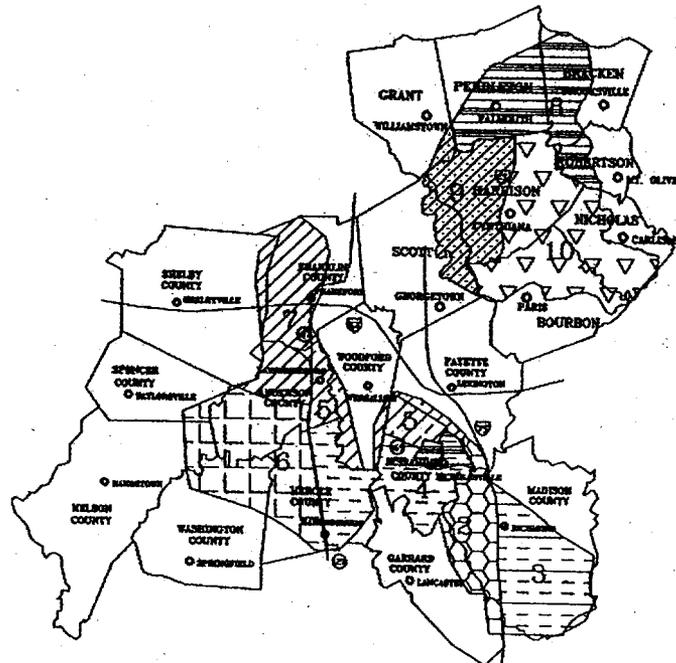
**Gary Keller, Harrodsburg**  
District 4

**Brad Marshall, Cynthiana**  
District 10

**Dennis Moneyhon, Foster**  
District 8

**Jane Smith, Waddy**  
District 7

**Paul Tucker, Sadieville**  
District 9



BYLAW AMENDMENT OF FIRST THREE PARAGRAPHS  
OF SECTION 3 ARTICLE IV OF BYLAWS

I. EXISTING SECTION 3 ( First 3 paragraphs):

Section 3. Election and Tenure

All directors from the former Blue Grass Energy Cooperative Corporation and three (3) directors from the former Harrison County Rural Electric Cooperative Corporation shall continue to serve the remainder of the terms for which each was elected and until a successor has been elected at an annual meeting as set forth herein.

2002 - Districts No. 1,4,5, and 8

2003 - Districts No. 3,7, and 9

2004 - Districts No. 2,6 and 10

All directors elected at the expiration of above terms of office shall be elected for terms of three (3) years.

II. PROPOSED AMENDMENT TO SECTION 3 TO BE SUBSTITUTED FOR FIRST 3 PARAGRAPHS:

Section 3. Election and Tenure

All directors shall be elected for terms of four (4) years at the expiration of existing terms of office beginning at the annual election in 2005, except for directors of Districts No.5 and 8, whose terms shall be three (3) years at the election in 2005 and four (4) years thereafter.

Annual elections for Board of Directors shall be as follows:

2005 - Districts No. 5 and 8 (3 year terms).

2005 - Districts No. 1 and 4 (4 year terms).

2006 - Districts No. 3,7 and 9 (4 year terms).

2007 - Districts No.2,6 and 10 (4 year terms).

2008 - Districts No. 5 and 8 (4 year terms).

[NOTE: Districts No. 1 (Zeb Blankenship), No. 4 (Gary Keller), No. 5 (Richard Crutcher) and No.8 (Dennis Moneyhon) are the 4 districts scheduled for election in 2005.]

**AMENDMENT OF SECTION 6**  
**OF THE BYLAWS OF**  
**BLUE GRASS ENERGY COOPERATIVE CORPORATION**

Section 6. Conduct of Elections. The Board of Directors shall have the duty of naming a Provost in charge of director elections who shall have the responsibilities and duties regarding nominating petitions as well as votes and the counting of same. The duties of the Provost regarding nominating petitions and the conduct of elections shall be as follows:

- (1) The Provost of the election shall examine and audit the petition or petitions filed by candidates for election to the office of director to determine if the petition or petitions comply with the requirements of the Kentucky Revised Statutes, the Articles of Consolidation, and these Bylaws.
- (2) The Provost is granted the power and authority to pass upon and determine the validity of the signatures, printed names, and address on the petition or petitions to determine if those signing are qualified members in good standing of the Cooperative and entitled to vote for the election of directors.
- (3) If the Provost shall disapprove a signature, printed name, and/or address on a petition or petitions, he shall list same in writing giving the reason or reasons why signature, printed name, and/or address was not approved.
- (4) The Provost shall determine if the required number of qualified voting members have signed the petition or petitions after having deducted from the petition or petitions the names disapproved by him because the names, signatures, printed names, and/or address

on said petition or petitions fail to comply with the Kentucky Revised Statutes, the Articles of Consolidation of the Cooperative and these Bylaws. If a petition does not contain the required number of valid signatures, printed names, and addresses of members in good standing, then the Provost shall not certify to the Secretary the name of the nominee as on said petition as a candidate to be placed upon the official ballot.

Upon completion of the examination and audit of the petition or petitions by the Provost, he shall certify to the Secretary of the Cooperative the name or names of those persons properly nominated by petition or petitions so that those nominated may be listed on the official ballot.

After receiving the nominations, the Secretary will contact those persons nominated and give them an opportunity to furnish biographical information. This information is to be included with the official ballot which is sent to all the members as required by the Bylaws. The Secretary shall have the right to require the candidate to limit such biographical information to not more than two hundred (200) words.

- (5) After the Provost has certified the names of the candidates nominated by petition or petitions to be placed upon the official ballot, it shall be the responsibility of the Secretary to prepare a printed ballot of those persons duly nominated by the Committee and by nominating petition within fifteen (15) days after the nominating petitions are required to be posted. The printed ballot shall show separately those persons nominated by the Nominating Committee and those persons nominated by petition in alphabetical order by district and labeled in such a manner as to note which candidate appears on the ballot by nomination of the Nominating Committee and which appears on the ballot by nomination by petition.

It shall be the further responsibility of the Secretary to see that appropriate official ballots are mailed to each active and qualified member at his last address shown on the Cooperative records,

not less than twenty (20) days prior to said Annual Meeting at which the results of said election are to be announced.

The official ballot shall be inscribed with instructions by the Secretary of the Cooperative as to how many candidates may be voted for on each ballot by the member and with instructions that all official ballots must be returned only by U.S. Mail and received not less than ten (10) days prior to the said Annual Meeting. Any ballot not received by mail or received after the time set for receipt thereof, shall not be counted.

Each official ballot shall be placed with an envelope labeled Ballot Envelope within an Official Return Envelope bearing postage prepaid, addressed to the Provost, Blue Grass Energy Cooperative, Post Office Box 990, Nicholasville, KY 40340-0990.

The official ballot shall be personally marked and voted by the eligible member and then placed in the Ballot Envelope and sealed. The sealed Ballot Envelope, with the official ballot enclosed, shall then be placed in the Official Return Envelope which is addressed to the Provost with postage prepaid. The Official Return Envelope shall then be signed by the member in the space provided thereon so it can be determined by the Provost prior to opening the Official Return Envelope whether the person signing the Official Return Envelope is an eligible voting member of the Cooperative. The member shall then seal and mail the Official Return Envelope to the Provost.

All return envelopes shall be deposited in a locked Ballot Box or Boxes at the Nicholasville Post Office or other secure location as may be designated by the Provost.

- (6) In the event a voting member in good standing has his, her or its ballot inadvertently

destroyed, or the Official Return Envelope inadvertently destroyed, or the cover envelope with the contents therein was not received by the voting member, then, upon the voting member having exhibited to the Provost his driver's license and/or a social security card, the Provost shall check the Cooperative's membership list to determine if he, she or it is a voting member in good standing.

The Provost shall then cause the voting member to execute an Affidavit before a Notary Public at the Office of the Provost, and, if the Provost approves, he may then and there deliver to the voting member a Return Envelope, a Ballot Envelope, and a Ballot. However, no Affidavit, Official Return Envelope, Ballot Envelope and a Ballot shall be delivered by the Provost after 4:30 p.m., on the tenth day prior to the Annual Meeting.

- (7) The Board of Directors shall, at least thirty (30) days before any election of directors appoint an Election Committee. The Committee shall include the Provost and shall consist of an uneven number (including Provost) not less than five (5) members of the Cooperative who are not members of the Nominating Committee or existing Cooperative employees, agents, officers, directors or known candidates for director, and who are not close relatives or members of the same household thereof. In the event a protest or objection is filed concerning any election, such protest or objection must be filed during, or within three (3) business days following the adjournment of the meeting in which the voting is conducted. The Committee shall thereupon be reconvened, upon notice from the Provost, not less than three (3) days after such protest or objection is filed. The Committee shall hear evidence as is presented by the protestor (s) or objector (s), who may be heard in person, by counsel, or both, and any opposing evidence, and the Committee, by a vote of a majority of those present and voting, shall, within a reasonable time but not later than thirty (30) days after such hearing, render its decision, the result of which may be to affirm the election, to change the

outcome thereof, or to set aside. The Committee may not affirmatively act on any matter unless a majority of the Committee is present. The Committee's decision (as reflected by a majority of those actually present and voting) on all matters covered by this section shall be final.

- (8) The duties of the Provost and Election Committee regarding votes and counting shall be as follows:
- a. At no later than 9:00 a.m. on the second day prior to the Annual Meeting of members, the Provost shall take the locked Ballot Box or Boxes containing the Return Envelopes and transfer the locked Ballot Box or Boxes to a location of his choosing.
  - b. The Provost and Election Committee shall unlock the Ballot Box or Boxes and examine each Return Envelope to ascertain if it has been properly signed. Signatures on behalf of a corporation, partnership, church or other organization shall be presumed to be by a duly authorized officer, partner or agent of the organization, unless shown otherwise by written notice of the organization by the Provost prior to the count of the vote.
  - c. Any and all Return Envelopes found by the Provost and Election Committee not to conform to the provisions and requirements of these Bylaws shall not be opened but shall immediately be placed in a locked Ballot Box or Boxes for rejected Return Envelopes which shall be retained by the Provost in safekeeping until sixty (60) days after the Annual Meeting.
  - d. When the unopened Return Envelope is found by the Provost and Election Committee to be in conformity with the provisions and requirements of these Bylaws, the Provost and Election Committee shall see that the membership record is marked so as to indicate the member has voted. The Return Envelope shall then be placed in a locked Ballot Box for the accepted Return Envelopes.
  - e. In the event another Return Envelope is found by the Election Committee to be from the same voting member, the Election Committee shall reject the second unopened Return

Envelope, state the reason for rejection and place it in the locked Ballot Box provided for any and all unopened Return Envelopes found not to conform to the provisions and requirements of the Bylaws.

- f. After all the Return Envelopes have been checked by the Provost and Election Committee for approval or rejection and placed either in the locked Ballot Box or Boxes for accepted Return Envelopes or placed in locked Ballot Box or Boxes for rejected Envelopes, the Provost and Election Committee shall then open the accepted Return Envelopes and remove the unopened Ballot Envelopes therefrom and place same in locked Ballot Box until all of said Return Envelopes have been opened. The Provost and Election Committee shall open the locked Ballot Box or Boxes containing the unopened Official Ballot Envelopes and remove same from said Ballot Box or Boxes and open said Official Ballot Envelope and tabulate all valid votes cast on each Official Ballot. Counting of ballots shall be conducted solely by the Provost and Election Committee with the assistance of any personnel necessary for its work. Any nominee or anyone designated in writing by such nominee may be present in the counting room. No other person shall be present in the counting room except the Cooperative Attorneys who may be present at any part of the election process.

In addition to the reasons state elsewhere in Paragraph 7 Section 6, the following Ballots shall not be counted:

- (1) A Ballot marked for more than one candidate in each district from which a director is to be elected;
- (2) Ballots other than the Official Ballot.

- g. Any Official Ballot deemed invalid by the Provost and Election Committee for reasons set forth in these Bylaws shall be placed in the locked Ballot Box or Boxes containing the rejected Return Envelopes.
- h. The Ballot Box or Boxes shall be kept locked at all times except when the Provost and

Election Committee are present.

- i. If the counting of the Official Ballots has not been completed at the time of adjournment of the counting, all Official Ballots unopened and uncounted shall be kept in the locked Ballot Box or Boxes in the Provost's safekeeping until the counting of all Official Ballots is again begun in the presence of the Provost and Election Committee and this procedure shall continue until all valid Official Ballots have been counted and tabulated.
- j. The Provost shall place all official and valid Ballots which have been counted in a locked Ballot Box and shall retain same unopened in safekeeping of the Provost for sixty (60) days after the date of the Annual Meeting.
- k. The Provost shall promptly, upon completion of the counting of the membership votes, certify in writing to the Secretary of the Board the names of the candidates and the number of votes received by each and shall also certify the names and address of the candidates receiving the highest number of votes taking into account the number of directors to be elected and the respective districts they are to represent. In case of any tie votes, drawing by lot by the candidates shall resolve any tie votes. The Secretary shall announce the election results at the Annual Meeting.
- l. After sixty (60) days have passed from the day of the Annual Meeting of members, the Provost shall deliver the Ballot Box or Boxes to the Secretary of the Cooperative.



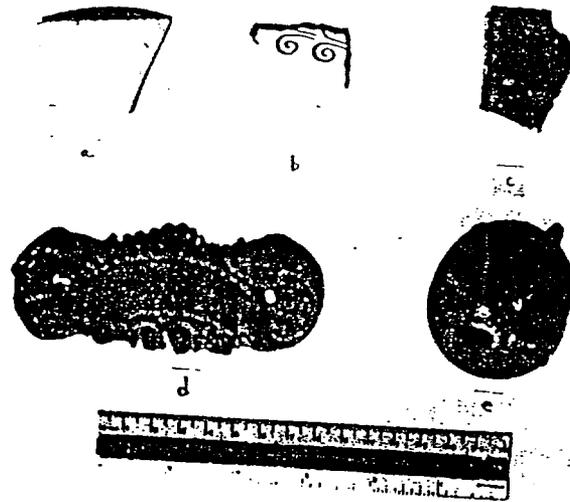


Figure 3 - Illustrated artifacts from 15Hr44, (a) undecorated white ware rimsherd, (b) white ware body sherd with blue decoration, (c) stone ware body sherd with light green exterior glaze, (d) copper (?) dresser drawer decoration, and (e) brass pipe end.



Figure 4- Rental house and barn # 1, looking Southwest

Figure 3,e 1 brass pipe end.

The copper (?) dresser drawer decoration (Figure # 3,d) may date back to the 1800's, but nothing else appears to be that old.

### SITE SUMMARY AND RECOMMENDATIONS

Site 15Hr44 is a rural house location which dates primarily from the 20th century. Relatively few items were recovered from this area and the site certainly has no National Register potential. Thus, no further work is recommended for 15Hr44.

### BUILDINGS

Four barns and one (1) house are standing in the project area. The house (Figure # 4) illustrates a small 20th century structure at the north end of the project. This dwelling is now occupied by renters. Barn # 1 can be seen behind the house location. All four barns are 20th century tobacco barns. Barn # 1 is 60 ½ feet in length x 56 ½ feet in width. Barn # 2 is 35 feet in length x 35 feet in width. Barn # 3 is adjacent to 15Hr44 and was not measured. Barn # 4 is 130 feet in length x 26 feet in width. None of these buildings have any National Register potential.

### PROJECT SUMMARY AND RECOMMENDATIONS

Dr. Jack M. Schock of Arrow enterprises conducted an archaeological reconnaissance of approximately 200 acres for a proposed Industrial Park at Cynthiana in Harrison County, Kentucky on March 26 - 27, 1998. The work was conducted at the request of Mr. Craig McAnelly of the Bluegrass Area Development District in Lexington, Kentucky.

The Kentucky Clearinghouse Number is KY 98-0217-0073 and the Lead Agency is EDA.

The investigation locate one archaeological site (15Hr44) and examined four 20th century barns and one non-site house location.

Site 15Hr44 is a 20th century house location with no National Register potential. No additional work is recommended for 15Hr44 nor the project area.

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Reports in Anthropology and Archaeology, Vol 2. Lexington.

Wyss, James D. and Sandra Wyss

- 1977 An Archaeological Assessment of Portions of the Red River Gorge,  
 Daniel Boone National Forest, Kentucky  
 Archaeological Report No. 1. U. S. Department of Agriculture  
 Forest Service, Southern Region

## VITA

The investigator's vita is on file at both the Kentucky State Archaeologist's Office and the Kentucky Heritage Council.

SCHOCK, JACK M.

PhD.: Anthropology. State University of New York at Buffalo, 1974.

M.A. Anthropology, University of Kansas, 1964

Retired Professor of Anthropology: Department of Sociology and Anthropology  
Western Kentucky University  
Bowling Green, Kentucky, 422101

Home Telephone (502) 843 - 1574

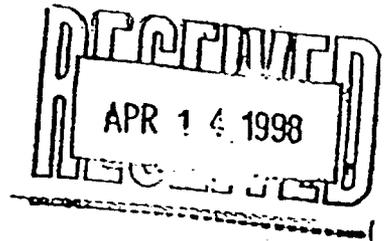
Fax: (502) 843 - 8187

Member: Society of Professional Archaeologists

Twenty-nine (29) years of professional work in Kentucky and over 1000 archaeological reports.



Education, Arts and Humanities Cabinet



**KENTUCKY HERITAGE COUNCIL**  
The State Historic Preservation Office

Paul E. Patton  
Governor  
Roy Peterson  
Cabinet Secretary

David L. Morgan  
Executive Director  
and SHPO

April 8, 1998

Mr. D. Craig McAnelly,  
Economic Development Specialist  
Blue Grass Area Development District  
699 Perimeter Drive  
Lexington, Kentucky 40517

RE: "A Cultural Reconnaissance of Approximately 200 Acre Industrial Park at Cynthiana  
in Harrison County, Kentucky" by Jack M. Schock  
SAI #KY970217-0073

Dear Mr. McAnelly:

We have completed our review of the above referenced archaeological report. During the course of his investigation the author recorded one archaeological site (15Hr44). Based upon the results of his study the author concluded that this site is not eligible for listing in the National Register of Historic Places and warrant no further work. I concur with the author's findings and recommendations.

The project will have no effect on any property listed in or eligible for listing in the National Register of Historic Places and I have no objections to its construction. If you have any questions please feel free to contact David Pollack of my staff at 502-564-7005.

Sincerely,

David L. Morgan, Director  
Kentucky Heritage Council and  
State Historic Preservation Officer

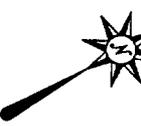
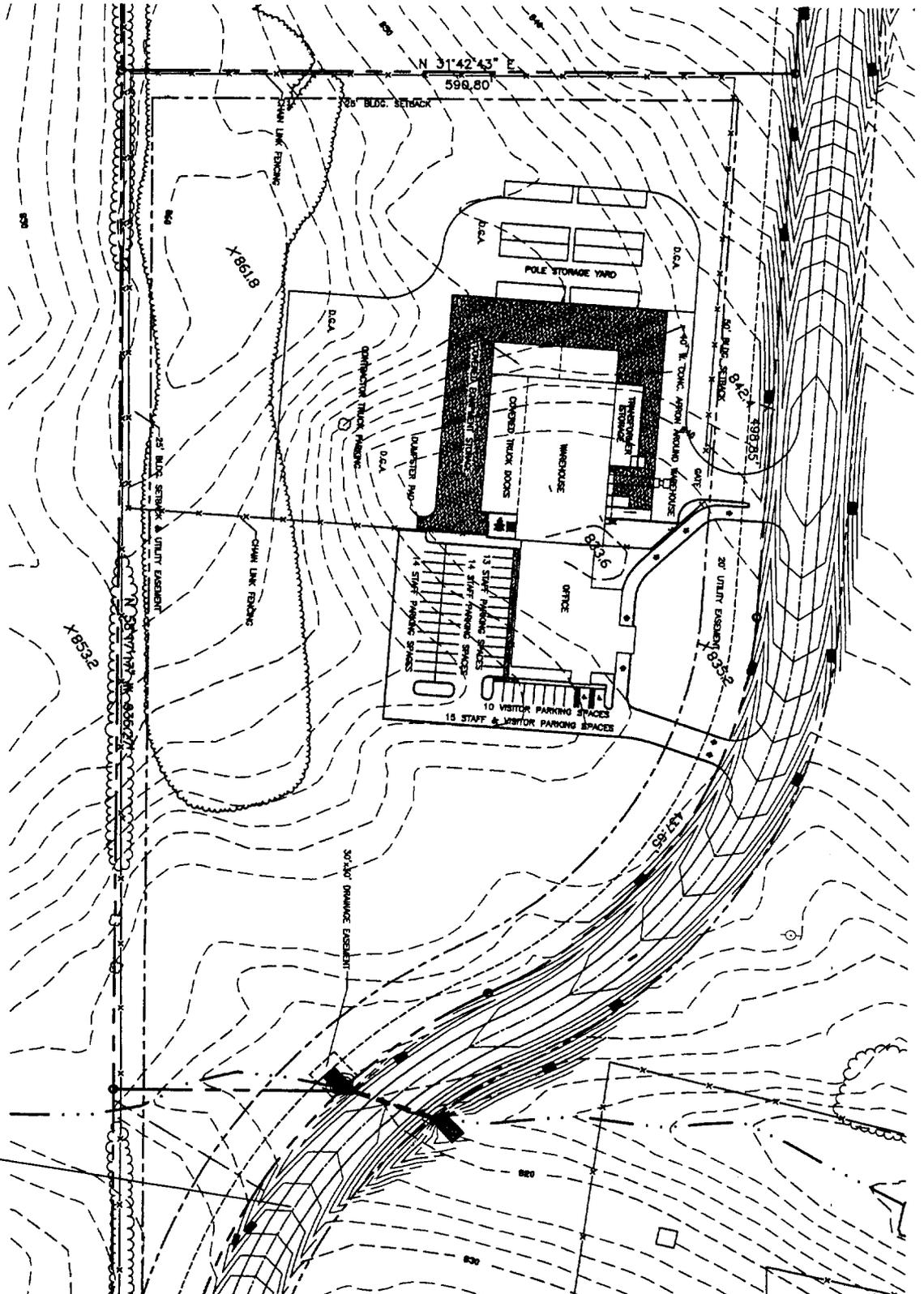
300 Washington Street  
Frankfort, Kentucky 40601



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FAX (502) 564-5820

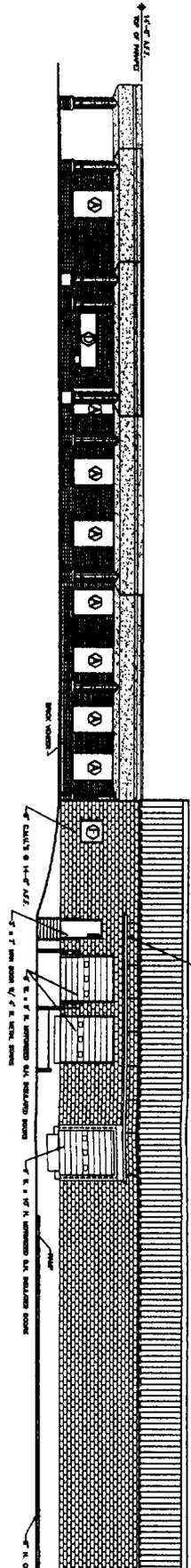
Printed on recycled paper



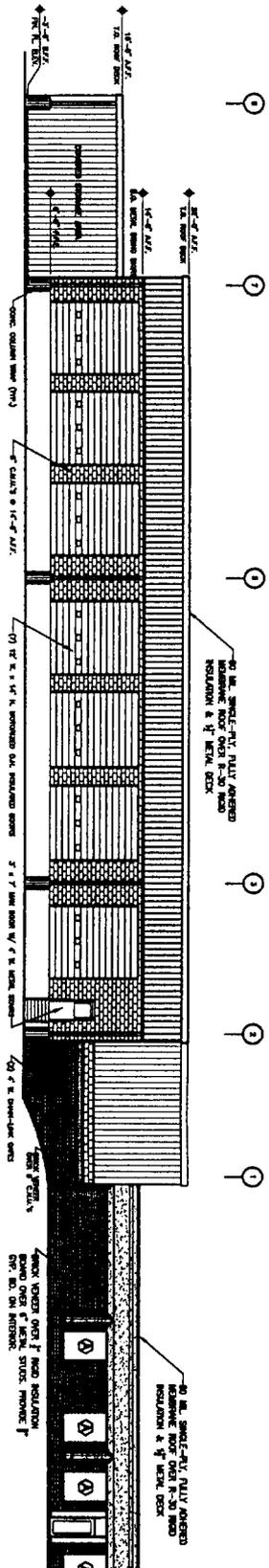

**SITE PLAN**  
 SCALE: 1" = 50'-0"

Chord N 26°08'33"  
 CD = 447.25'  
 L = 503.10'  
 Rod = 449.53'

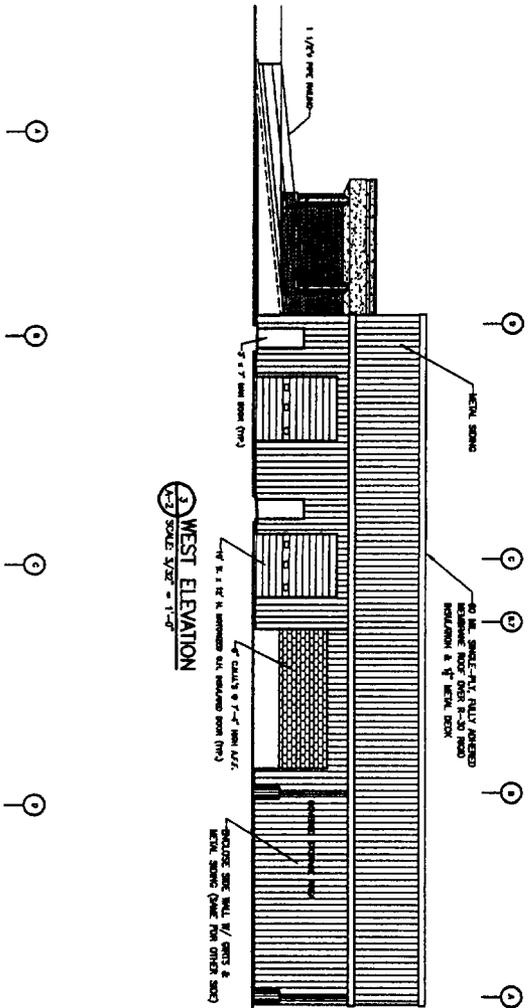




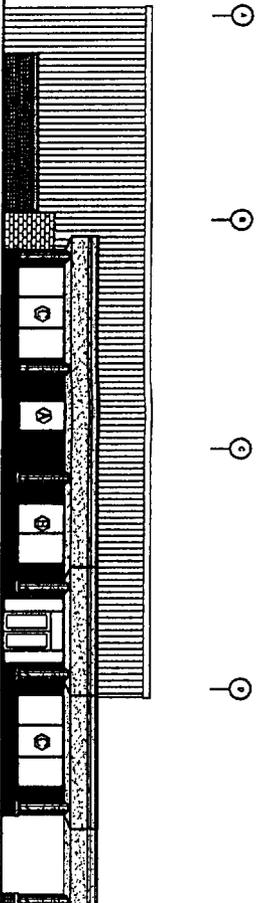
1 NORTH ELEVATION  
SCALE: 3/32" = 1'-0"



2 SOUTH ELEVATION  
SCALE: 3/32" = 1'-0"



3 WEST ELEVATION  
SCALE: 3/32" = 1'-0"



4 EAST ELEVATION  
SCALE: 3/32" = 1'-0"





United States Department of Agriculture  
Rural Development

AUG 6 2004

Mr. Daniel W. Brewer  
President/CEO  
Blue Grass Energy Cooperative  
P.O. Box 990  
Nicholasville, Kentucky 40340-0990

AUG 12 2004

Dear Mr. Brewer:

The Rural Utilities Service's (RUS) Engineering and Environmental Staff reviewed the environmental report for the proposed Harrison District Office. The report was prepared and submitted by East Kentucky Power Cooperative. They have determined that the project, as proposed, meets the criteria for a categorical exclusion in accordance with 7 CFR Section 1794-Environmental Policies and Procedures.

RUS will need no further information regarding potential environmental impacts associated with the Harrison District Office provided it is constructed as proposed and no latent environmental impacts are discovered during construction.

Thank you for your assistance and cooperation in helping us fulfill RUS' environmental review requirements.

Sincerely,



CHARLES M. PHILPOTT  
Chief, Engineering Branch  
Northern Regional Division

cc: Jeff Hohman, East Kentucky Power Cooperative

1400 Independence Avenue, SW, Washington, DC 20250  
Web: <http://www.rurdev.usda.gov>

Committed to the future of rural communities.

"USDA is an equal opportunity provider, employer and lender."

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14<sup>th</sup> and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD).

Ms Carol Higdon  
District Manager  
Blue Grass Energy  
302 Oddville Road  
Cynthiana, Kentucky  
41031-0730

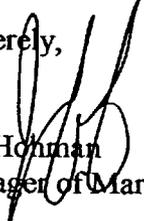
July 14, 2004

Dear Carol,

Here is the environmental packet that I sent to RUS. This package is for your files. Given that you all provided us with so much great information, I think you will have a response very quickly.

Thanks again for your patience and I look forward to seeing your new office very soon.

Sincerely,



Jeff Honman  
Manager of Marketing and Natural Resources



EAST KENTUCKY POWER COOPERATIVE

Mr. Bob Quigel  
Rural Utilities Service  
12th & Independence Ave., SW  
Room 2244  
Washington, D.C. 20250

July 13, 2004

Dear Bob;

As stated in the voice mail that I left yesterday, Blue Grass Energy is proposing a headquarters building for the Harrison District. The new building will be located in the existing Cynthiana Business Park just west of highway 62 near Cynthiana, Kentucky.

The site is an industrial park and will have no impact on rare or endangered species, cultural resources, Waters of the Commonwealth or state or federal lands.

The proposed site is a fescue-dominated ridge. This site is not located in a 100-year floodplain. There are no wetlands or karst areas impacted. There are no airports impacted by this project. Attached are a brief project description, a Phase I Environmental Assessment, site map, topographic quad, archaeological survey and photos of the site.

Joe Settles (EKPC) and I visited the site today and it is an ideal site for the proposed headquarters.

If you have additional questions, please contact me at 800-238-3443 (361).

Sincerely,

A handwritten signature in black ink that reads "Jeff Hohman".

Jeff Hohman

Manager of Marketing and Natural Resources

4775 Lexington Road 40391  
P.O. Box 707, Winchester,  
Kentucky 40392-0707

Tel. (859) 744-4812  
Fax: (859) 744-6008  
<http://www.ekpc.com>

## **BGE Harrison District Office**

Blue Grass Energy proposes to build a new district office for our Harrison district in the Cynthiana-Harrison County Business Park No. 2. Our plan is to purchase approximately 11 acres in the park. We are planning to build a full service office with warehouse and pole storage. We are expecting to disturb 6.2 acres of land on the lot.



1:50,000  
SCALE  
(CYNTHIANA)

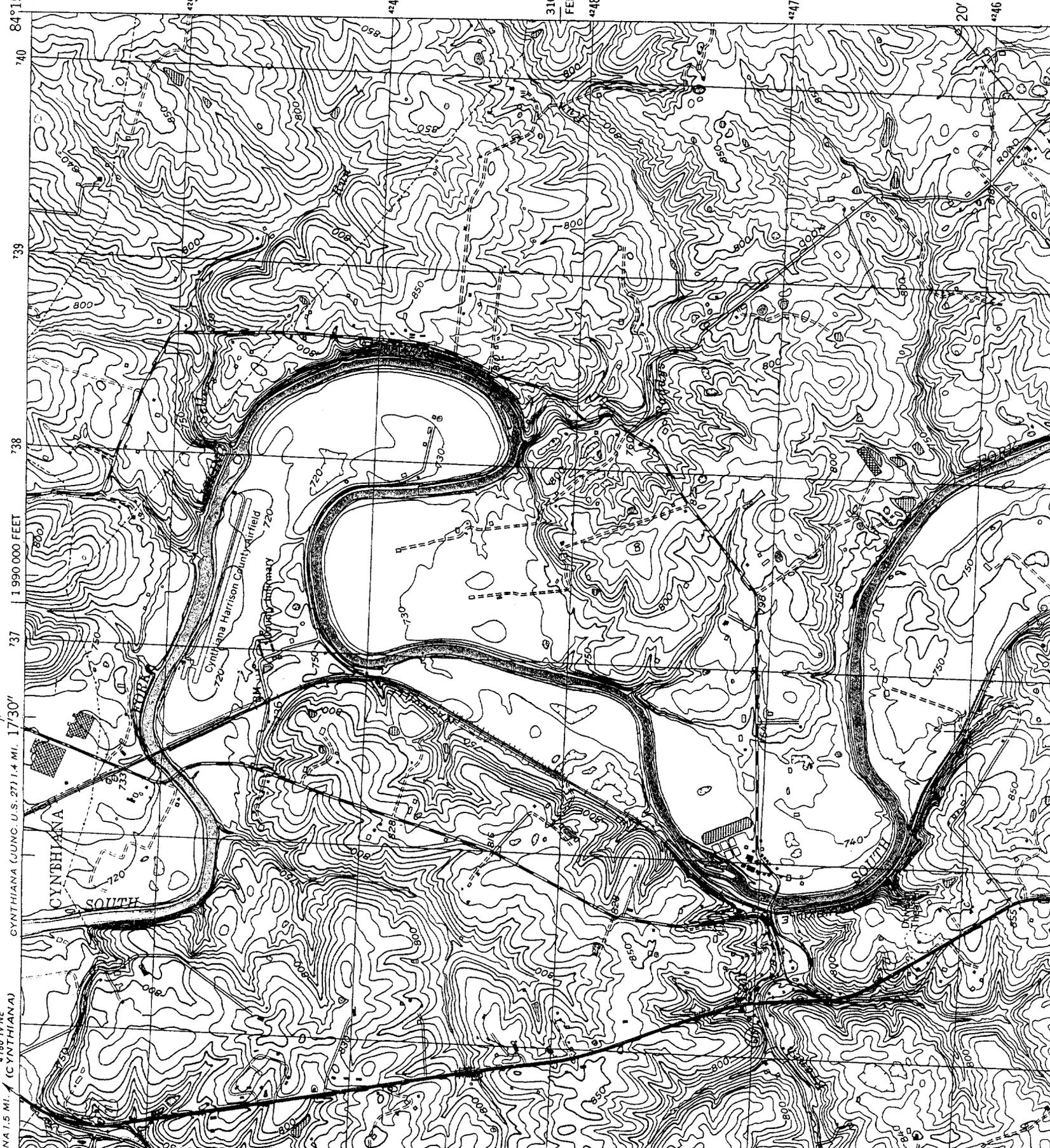
CYNTHIANA (JUNC. U.S. 27) 1.4 MI. 17'30"

737 1:1990 000 FEET

738

740

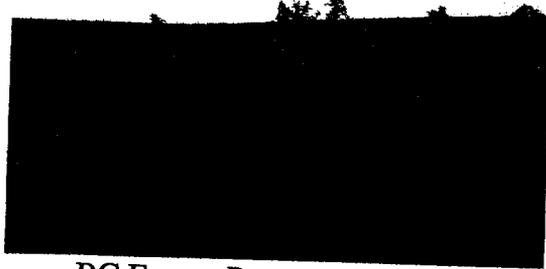
84°15'  
38°22'30"



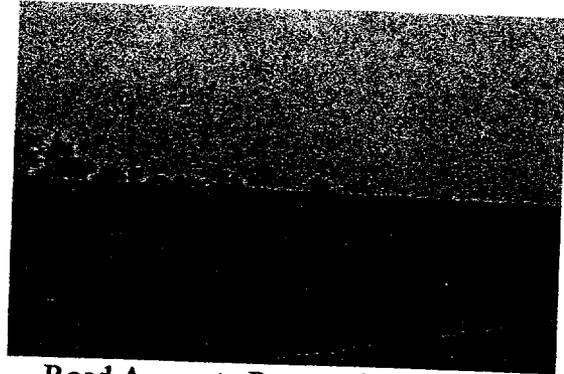
310 000  
FEET

20  
4246  
4247

**Photos of the Proposed Blue Grass Energy – HQ (Cynthiana, Ky)  
Cynthiana Business Park**



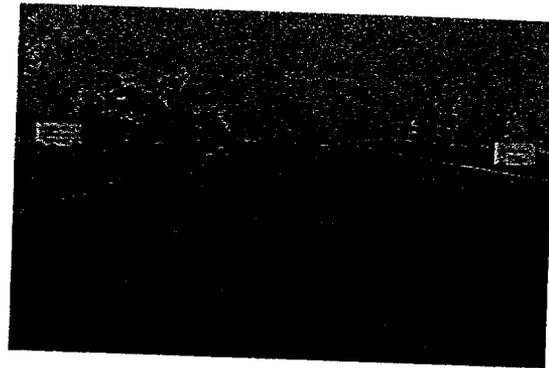
**BG Energy Proposed HQ Site**



**Road Access to Proposed Site**



**NW Section of BG Energy Property**



**Entrance to Cynthiana Business Park**

# Phase I Environmental Site Assessment

---

Cynthiana Industrial Park  
Harrison County, Kentucky

✓ PHASE I ENVIRONMENTAL  
SITE ASSESSMENT

✓ ARCHAEOLOGICAL  
RECONNAISSANCE

✓ GEOTECHNICAL  
CHARACTERIZATION  
INVESTIGATION

for

Cynthiana Harrison County  
Economic Development Authority

*December 6, 2000*



Commonwealth Technology, Inc.

# Phase I Environmental Site Assessment

Cynthiana Industrial Park  
Harrison County, Kentucky

*for*

Cynthiana Harrison County  
Economic Development Authority  
203 West Pike Street - Suite 200  
Cynthiana, Kentucky 41031

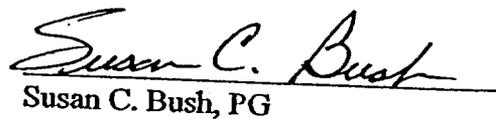
*December 6, 2000*

Prepared by:



Gerald G. Fister, PG

Reviewed by:



Susan C. Bush, PG

Commonwealth Technology, Inc.  
2526 Regency Road  
Lexington, Kentucky 40503

<http://www.ctienv.com>

Phone: 859-276-3091  
Toll Free: 800-467-3091  
Fax: 859-276-4374

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- FIGURE 3 – Geologic Location Map

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- APPENDIX A – Qualifications Of Personnel
- APPENDIX B – Photographic Journal
- APPENDIX C – Regulatory Records Search

## EXECUTIVE SUMMARY

The Environmental Consulting Division of Commonwealth Technology, Inc. (CTI) conducted a Phase I Environmental Site Assessment (ESA) of the Cynthiana Industrial Park property located south-east of Cynthiana in Harrison County, Kentucky. Mr. James A. Brown of the Cynthiana-Harrison County Economic Development Authority authorized CTI to conduct the Phase I Environmental Site Assessment.

The objective of this Phase I ESA was to identify recognized environmental conditions present on the property. This Phase I ESA, performed in accordance with the protocol outlined in ASTM Standard E 1527-00, included investigating the historical use of the property, conducting a site reconnaissance, reviewing regulatory records and interviewing persons familiar with the property.

The subject property is 199 acres in size and currently contains no buildings. It has recently been graded and seeded with the addition of a 24-foot wide curbed street and utilities. The street runs north south between US Highway 62 and Kentucky Highway 32. It is situated in a rural area and surrounded by agricultural properties.

The regulatory records review did not identify the subject property or any adjacent properties as being the focus of any state or federal environmental regulatory agency action. There were no nearby facilities identified in the regulatory record review that would be expected to have any significant potential to adversely affect the subject property.

During the site reconnaissance two lengths of eight-inch asbestos containing transite water pipe were observed. The presence of this, apparently discarded, asbestos-containing material represents an environmental condition. No other environmental conditions were observed.

## INTRODUCTION

### *Purpose and Scope*

The objective of this Phase I ESA was to identify recognized environmental conditions that may exist on the subject property. A recognized environmental condition is defined as follows:

*The presence or likely presence of any Hazardous Substances or Petroleum Products on a Property under conditions that indicate an existing release, a past release, or a material threat of a release of any Hazardous Substances or Petroleum Products into structures on the Property or into the ground, groundwater, or surface water of the Property. The term includes Hazardous Substances or Petroleum Products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not represent a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. (Phase I Environmental Site Assessment Process, ASTM Standard E 1527-00).*

The scope of services in this Phase I ESA follow:

- A site reconnaissance of the subject property was conducted.
- The Standard Environmental Record Sources were researched through a database search conducted by Environmental Data Resources, Inc. (EDR).
- The mandatory standard physical setting sources were the Shawhan USGS 7.5 minute topographical map (1970, 1969).
- Discretionary and non-standard physical setting sources included the Shawhan USGS Geologic map (1963) and the Soil Conservation Service *Soil Survey of Harrison County*,

Kentucky (United States Department of Agriculture, 1983). Deed research at the Harrison County Clerks office.

- Additional historical sources included the Cynthiana and Shawhan, USGS Geologic Map (1961) and USGS Geologic Map (1978), interviews with one of the current and a former property owner, and a representative of the local Fire Department.
- CTI included only cursory examination for the non-scope considerations listed in the ASTM Standard E 1527-00. A cursory review of non-scope considerations included in this report are identification of wetlands, identification of radon or asbestos containing materials as part of any buildings.

The qualifications of the CTI personnel who completed this report are included in Appendix A.

### *Background*

The subject property is 199 acres in size. It has recently been graded and seeded with the addition of a 24-foot wide curbed street and utilities. The street runs north to south between US Highway 62 and Kentucky Highway 32. It is situated in a rural area and is surrounded by agricultural properties. The subject property is located near Cynthiana in Harrison County, Kentucky on the Shawnah, Kentucky, United States Geologic Survey (USGS) 7.5-minute topographic map (Figure 1). The elevation of the subject property ranges from 750 to 860 feet above mean sea level.

## **PROJECT ACTIVITIES**

### *Site Reconnaissance*

Gerald Fister of CTI performed a site reconnaissance on the subject property on November 16, 2000. The inspection was conducted by walking along the property boundaries and transects across the property. Mr. Fister also conducted a vehicle tour of the general vicinity of the subject property.

Surface drainage flows primarily to the west into Grays Run, a tributary of the South Fork of the Licking River. A small portion of the property on the southern end flows east into an unnamed tributary that discharges directly into the South Fork of the Licking River.

The property has recently had a number of infrastructure improvements made including a 24-foot road and gutters, storm and sanitary sewers. The road extends the full length of the property connecting Kentucky Highway 32 and US Highway 62. The property is bounded by agricultural land and has road frontage along the aforementioned highways and Smith-Martin Lane. Overhead power lines cross the property from Smith Martin Lane to KY 32. Pertinent features are shown on the Site Map (Figure 2).

Most of the property can be described as "old field" or fallow pasture. Large areas of recently graded land are present, mostly associated with road and utility construction. Approximately 10% of the subject property is wooded or contains heavy vegetation. Visibility in these areas was limited.

Evidence of a foundation, driveway, gate and burnt building materials is present near Smith-Martin Lane. Further north along Smith-Martin lane, two sections of what appeared to 8-inch diameter transite water pipe were observed lying on the ground near a fence. The fence line appeared to be a property boundary perpendicular to Smith-Martin Lane. Other lengths of pipe may be present but due to the thick vegetation along the fence, a complete inspection was not possible.

A small dump is located south near the overhead power lines approximately 1200 feet from the southeastern corner of the property. The dump contained discarded building materials, brush, concrete and tobacco stalks. No hazardous materials or waste of concern was observed in the dump.

An occupied house is located on the subject property near KY 32. Mr. Fister did not enter the house but inspected the exterior. The house is of wood frame construction and appears to be

heated with fuel oil. The fuel oil tank is approximately 150 gallons in size and elevated on a steel frame. An inspection of the ground near the stand did not identify any spillage or leakage.

Utility construction materials and heavy equipment are staged around the construction trailer near KY 32. Adjacent to the trailer was a 2000-gallon skid tank with secondary containment. Some staining was observed near the dispenser hose. The staining appeared to be related leakage during equipment fueling. The stained area is small in size and can be considered *de minimis*.

Photographs of the subject property and adjacent properties are included in Appendix B.

### *Surrounding Land Use*

The land uses adjacent to the subject property are limited to agricultural and residential. The adjacent properties were observed across the property lines when driving and walking. None of the adjacent properties were observed to have any significant potential to contribute to the creation of an environmental condition on the subject property.

### *Historical Information*

Mr. Joe Craig Smith, a current member and past Chairman of the Cynthiana-Harrison County Economic Development Authority was interviewed regarding his knowledge of the subject property. He stated that the property was in use as agricultural land when the Authority purchased it. He was not aware of any environmental problems with the land such as dumps or petroleum underground storage tanks. He only recalled one structure, a barn, that was present on the subject property when they purchased it that has since been demolished.

Mr. Smith was not aware of any environmental liens or governmental notification received for violation of environmental regulations with respect to the property or any facility located on the property. Mr. Smith was not aware of any lawsuits concerning a release or threatened release of hazardous substances or petroleum products for the subject property. Mr. Smith was not aware of any burning, burial, or disposal on the property of any hazardous substance, petroleum product, or other waste material.

### *Chain of Title*

Deeds on file at the Harrison County Clerks Office were researched to gain insight in the historic use of the subject property. The chain of title search was searched back to 1900 and did not identify any prior ownership that would be suspected of creating an environmental condition on the property.

There are three standing deeds, db. 229, pg. 528; db. 228, pg. 515 and db. 228, pg. 510. Each listing the current owner as the Cynthiana-Harrison County Economic Development Authority. All previous owners were listed as individuals. One of these deeds, db. 228, pg. 515 represents only 0.02 acres and follows the same chain of title as the deed listed in db. 228, pg. 510 representing 101.32 acres.

The deed listed as db. 229 pg. 528 represented 97.7 acres shows it was previously owned by Leland and Nona Sparks for ten years. The deed listed in db. 228, pg. 510 shows the previous owner as Sam and Johnnie Arnold Jr.

### *Polk City Directories*

No City Directories exist for the subject property.

### *Aerial Photographs*

The subject property and adjacent properties were examined on a 1981 aerial photograph at the Harrison County Property Valuation Administrators Office. The photograph is identified as sheet 90 shows most of the subject property prior to its current development. The property was undeveloped agricultural land. Three structures are visible including the existing house. The other two consist of a shed and a barn. No dumps were observed in the photograph. The subject property was also examined on a 1960 (Cartographic Division US Soil Conservation Service USDA) aerial photograph contained in the 1968 Harrison County Soil Survey. This photo also shows the subject property under agricultural production. Smith-Martin Lane is not connected through to US 62. A structure present on the subject property near the current position of Smith-Martin Lane that was not present during the site inspection.

No indications of the presence of an environmental condition were observed in these photographs.

#### *Sanborn Fire Insurance Maps*

Sanborn Fire Insurance Maps were researched for coverage of the subject property. No coverage was found.

#### *Historical Mapping*

The KY USGS topographic map dated 1978 was examined. The mapping shows the presence of four structures on the subject property. Based on the map symbols, two of these structures appear to be houses and two appear to be barns or sheds. One house is present at the approximate location where a foundation was observed in the field and the other is the site of the existing house. The barns or sheds are located along the ridge tops. The mapping indicates the land use was agricultural.

#### *Regulatory Records*

Regulatory records for federal and state environmental programs were reviewed through a database search conducted by Environmental Data Resources, Inc. (EDR) database information service. Twenty-one databases were searched including: Resource Conservation and Recovery Information System (RCRIS), National Priority List (NPL), Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Emergency Response Notification System (ERNS), the Registered Underground Storage Tank database (UST), State Hazardous Waste Sites records (SHWS), Solid Waste Facilities/Landfill Sites records (SWF/LF), the No Further Remedial Action Planned Sites (NFRAP), the Toxic Chemical Release Inventory System (TRIS), the Facility Index System (FINDS), and the Mines Master Index File (MINES). Detailed descriptions of each database are included in the EDR Report included in Appendix C. The specific radii from the center of the subject property for each type of record are the following:

- RCRIS: treatment, storage, and disposal facilities, 1.0 mile; *no sites discovered.*

- RCRIS: large quantity generators (LQG), 1.0 miles; *no sites discovered.*
- RCRIS: small quantity generators (SQG), 1.0 miles; *no sites discovered.*
- NPL, 1.0 miles; *no sites discovered.*
- CERCLIS, 1.0 miles; *no sites discovered.*
- ERNS, target property; *no sites discovered.*
- UST, 1.0 miles; *no sites discovered.*
- SHWS, 1.0 miles; *no sites discovered.*
- SWF/LF, 1.0 mile; *no sites discovered.*
- CERC-NFRAP, 1.0 miles; *no sites discovered.*
- FINDS, target property; *no sites discovered.*
- TRIS, target property; *no sites discovered.*

No sites were plotted within the property boundaries of the subject property.

#### *Geologic/Hydrogeologic Setting*

The subject property is situated within the Outer Bluegrass subsection of the Bluegrass Physiographic Region. This subregion is characterized by rolling uplands with minor dissection along major streams with broad floodplains.

The 1968 soil survey issued by the Soil Conservation Service identifies the soil association on the subject property as the Faywood-Lowell association. This association makes up about 25 percent of Harrison County and is described as having deep, well-drained, gently sloping to moderately steep soils on uplands. The soils are underlain by limestone, and small sinkholes and depressions are common in some places. The Natural Resources Conservation Service does not report hydric soils in any of the series of soils mapped on the subject property. This is an indication that wetlands are not present.

The bedrock underlying the site is the Clays Ferry and Lexington Limestone Formations. These formations are composed of a interbedded limestone with thin shale partings. The Geologic Location Map, with the property location identified, is presented on Figure 3. An inquiry was

made with the federal database containing well information to determine if there were any registered water supply wells in the vicinity of the subject property. None were located within two miles of the vicinity of the subject property. A municipal water supply and sanitary sewer serves the subject property. Absent a detailed groundwater investigation, the groundwater flow direction is assumed to conform to the topographic contours, which is generally to the west.

## **FINDING AND CONCLUSIONS**

CTI has performed a Phase I ESA of the subject property in general conformance with the scope and limitations of ASTM Practice E 1527-00 of the subject property located near Cynthiana in Harrison County, Kentucky.

A deviation from the standard exists in the failure to inspect the interior of the single-family residence on the subject property. The standard calls for all structures to be entered and inspected. The exterior of the residence was inspected. It is not anticipated that there is any significant likelihood that an environmental condition is associated with the interior of this single-family residential structure.

One environmental condition was identified in the course of the performance of this assessment. The presence of discarded transite (asbestos-containing) water pipe represents improper disposal of asbestos containing material.

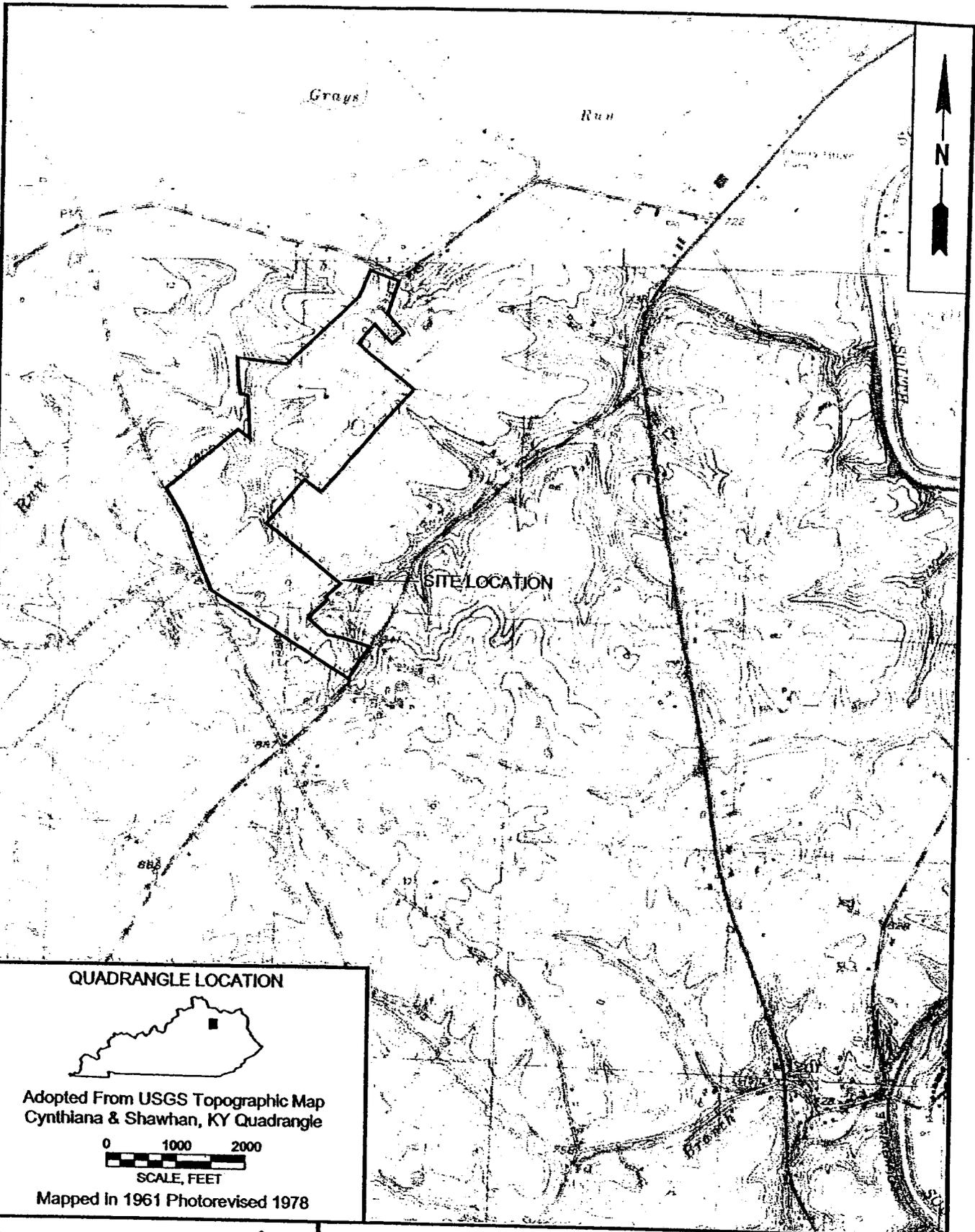
## **CONDITIONS AND LIMITATIONS**

The information in this report was collected by CTI. CTI makes no warranty, written or implied, that the statements contained herein are an absolute representation of the conditions that may have a bearing upon the environmental hazards and liabilities associated with the property. This Phase I ESA only attempts to document observations and collect information that may reflect on the presence of a "recognized environmental condition" at the subject property. There may be elements of the property that are associated with factors that are difficult to observe and

document in such an assessment. The standard by which this work product was completed does not call for the identification of all environmental issues or conditions, the identification of which is beyond the scope of this work product. These other environmental issues or conditions may be present at the subject property and may affect the use of the property.

The information contained in this report is only for the use of and is not intended for use by the Cynthiana-Harrison County Economic Development Authority other parties. Any other party that wishes to rely on this document must request in writing that CTI release the document for their use.

**FIGURES**



QUADRANGLE LOCATION



Adopted From USGS Topographic Map  
Cynthiana & Shawhan, KY Quadrangle



SCALE, FEET  
Mapped in 1961 Photorevised 1978

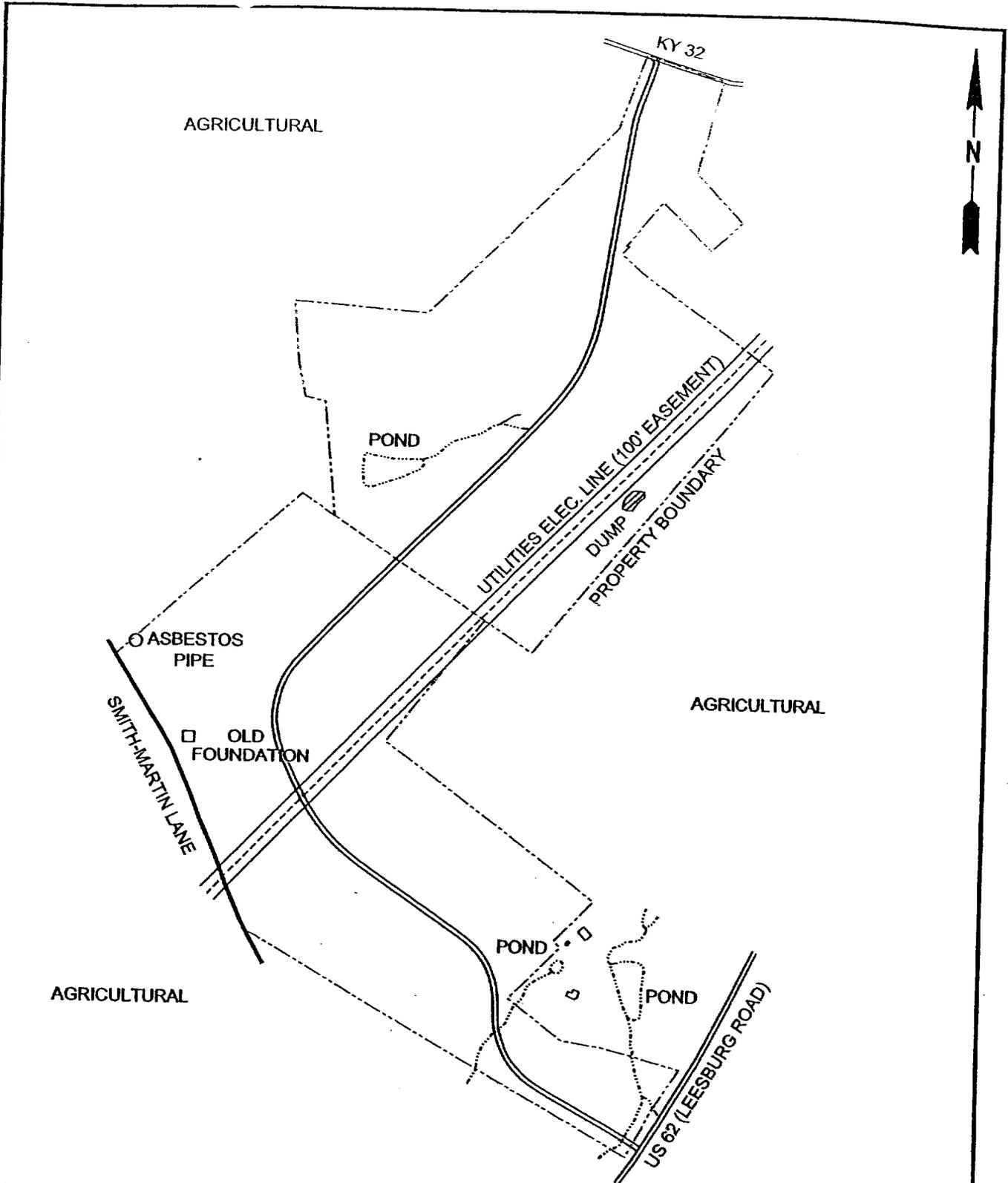
**Commonwealth  
Technology, Inc.**



*Environmental Consulting Division*  
Lexington, KY • Louisville, KY

**FIGURE 1**  
Site Location on Topographic Map  
Mason Farm / Industrial Park No. 2  
Phase I  
Cynthiana, Kentucky

0422PA-CYNTHIANA(11/28/00) DRAWN BY H.C.H.



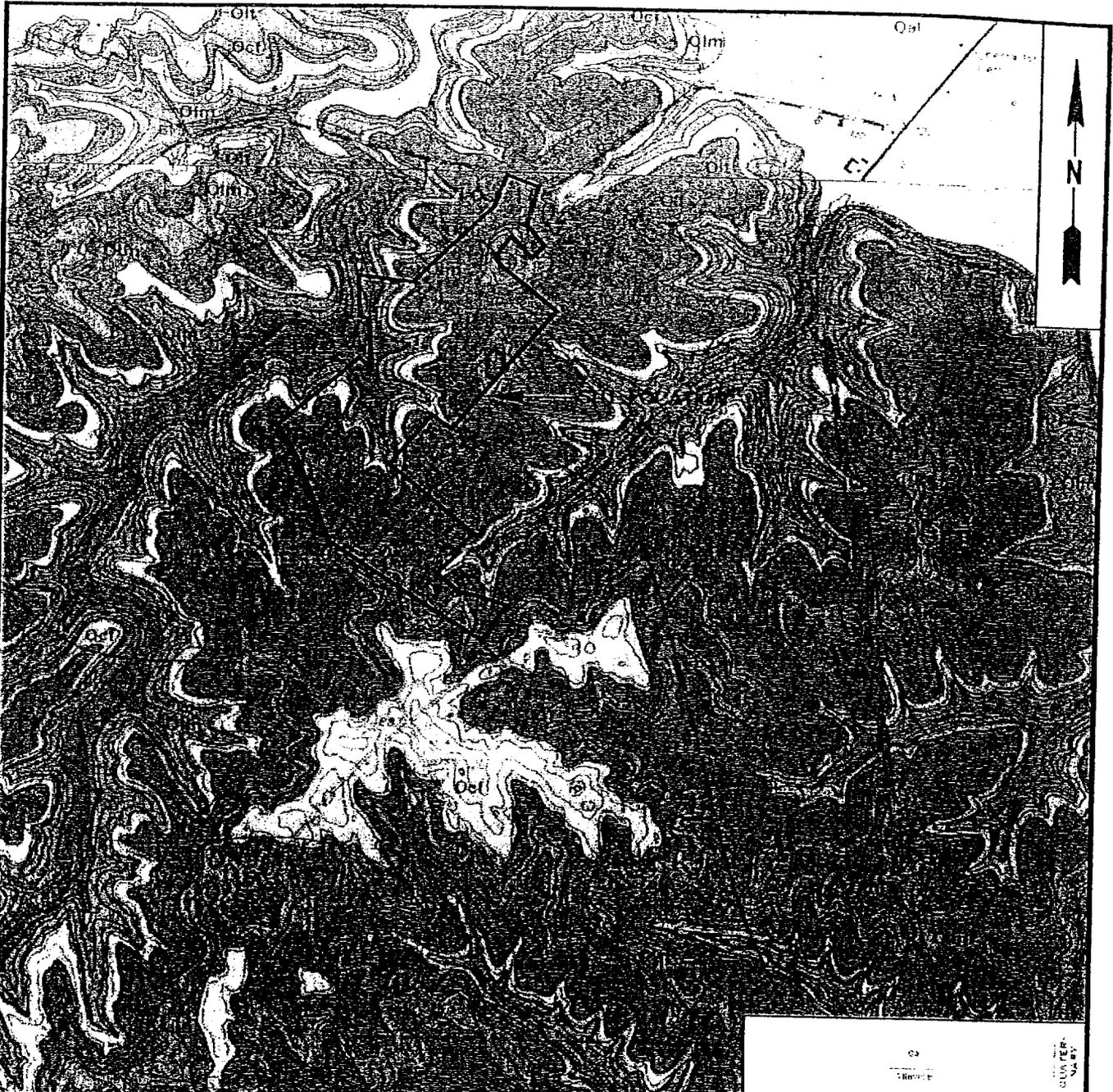
0422PA-CYNTHIANA(1/28/00) DRAWN BY H.C.H.

**NOTE:**  
 THE LOCATIONS OF STRUCTURES SHOWN ON THIS DRAWING ARE APPROXIMATE AND ARE INTENDED FOR INFORMATIONAL PURPOSES ONLY.



**Commonwealth Technology, Inc.**   
 Environmental Consulting Division  
 Lexington, KY • Louisville, KY

**FIGURE 2**  
 Site Map  
 Mason Farm / Industrial Park No. 2  
 Phase I  
 Cynthiana, Kentucky



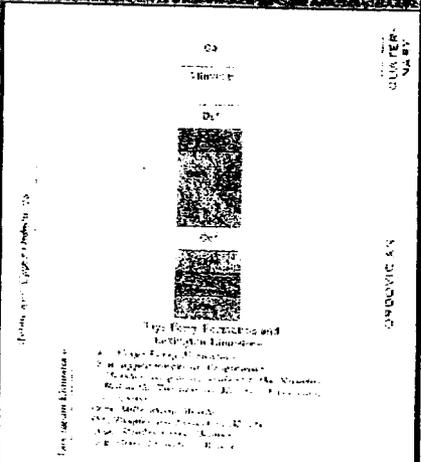
**QUADRANGLE LOCATION**



Adopted From USGS Geologic Map  
Cynthiana & Shawhan, KY Quadrangle



Geology Mapped 1973



0422PA-CYNTHIANA(1/28/00) DRAWN BY H.C.H.

**Commonwealth  
Technology, Inc.**



Environmental Consulting Division  
Lexington, KY • Louisville, KY

**FIGURE 3**  
Site Location on Geologic Map  
Mason Farm / Industrial Park No. 2  
Phase I  
Cynthiana, Kentucky

**APPENDICES**

**APPENDIX A – QUALIFICATIONS OF PERSONNEL**

## **Gerald Fister, PG**

*Geologist*

### *Education*

B.S. Geology, University of Kentucky, 1987

### *Professional Registrations*

Kentucky Professional Geologist No. 527

Kentucky Petroleum Storage Tank Environmental  
Assurance Fund Commission Certified No. 1031

### *Professional Memberships*

Association of Groundwater Scientist and Engineers

Geological Society of America

Geological Society of Kentucky



### *Professional Certifications*

CFR 1910.120 Hazardous Waste Operations and  
Emergency Response (Site Supervisor)  
Kentucky Asbestos Inspector

### *Prior Professional Experience*

Mr. Fister held a staff geologist position with Fuller, Mossbarger, Scott, and May Civil Engineers from 1987 to 1988. His primary responsibility was directing drilling activities for a geotechnical investigation related to the expansion of the Winfield Locks and Dam on the Kanawha River in West Virginia. His duties included inspecting monitoring well installation, piezometer installation, continuous soil sampling, rock coring, and shelly tube collection. This experience laid the foundation for the future application of subsurface investigation methods to the environmental field.

### *CTI Experience and Responsibilities*

Mr. Fister joined Commonwealth Technology, Inc. in 1988. He is a project manager in a wide variety of projects requiring a detailed understanding of regulatory environmental programs under the Clean Water Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response Compensation, and Liability Act, Toxic Substance Control Act, and state and local regulatory programs. In this capacity, he has designed and directed more than 300 site investigations involving the sampling and characterization of all environmental media. Many of these site characterizations are used to support corrective action plans,

risk analyses, and permitting and closure at industrial facilities and municipal landfills. Investigative techniques he uses include applying conventional technologies and methods as well as conducting groundwater dye trace studies; seismic, magnetic, and soil vapor surveys; and other geotechnical methods. He has completed over 700 Phase I Environmental Site Assessments (ESAs) for real estate transactions. Some of these Phase I ESAs have uncovered significant environmental liabilities associated with properties prior to buyer acquisition or bank mortgage closure, minimizing client exposure to environmental liabilities. In these cases, he has completed both Phase II and Phase III ESAs defining the extent of the environmental liability and implementation of corrective action.

Mr. Fister directs client services for a number of Kentucky state agencies including the Kentucky Transportation Cabinet (KYTC) and the Finance and Administration Cabinet (FAC). KYTC services include the identification and clearance of a wide variety of environmental problems from acquired highway right-of-ways. The FAC services include similar services at any state facility such as state parks or National Guard posts.

**Susan Bush, PG**  
*Geologist*

**Education**

B.A. Geology, Indiana University, 1979

**Professional Registrations**

Kentucky Professional Geologist No. 488  
Kentucky Petroleum Storage Tank Environmental  
Assurance Fund Commission Contractor No. 1003

**Professional Certifications**

CFR 1910.120 Hazardous Waste Operations and  
Emergency Response (Site Supervisor)

**Professional Memberships**

Kentucky Geological Society

**Prior Professional Experience**

From 1980 through 1991, Ms. Bush was employed by the Kentucky Natural Resources and Environmental Protection Cabinet. She served as the Director of the Division of Permits until 1989. Her responsibilities included management of Kentucky's coal mine permit program, development of policies and regulations related to the environmental impacts of mining, and issuance of mining permits.

From 1989 through 1991, Ms. Bush served as the Director of the Kentucky Division of Waste Management. Her duties included the administration of Kentucky's solid and hazardous waste programs, underground storage tank program, and the state Super Fund program. She was also responsible for supervising the compliance and enforcement actions related to these programs. She was instrumental in developing the current landfill regulations, and legislation related to solid waste reduction, and planning on a statewide level. She also developed policies and procedures related to environmental programs, and provided expert testimony before Kentucky's legislative committees.

**CTI Experience and Responsibilities**

Ms. Bush joined CTI in 1992. She is a professional geologist with experience in managing a wide range of environmental projects. As a project manager, she is responsible for developing budgets and work plans to ensure the successful and timely completion of projects. She is also responsible for preparing and presenting technical proposals and serving as the client liaison on several projects.

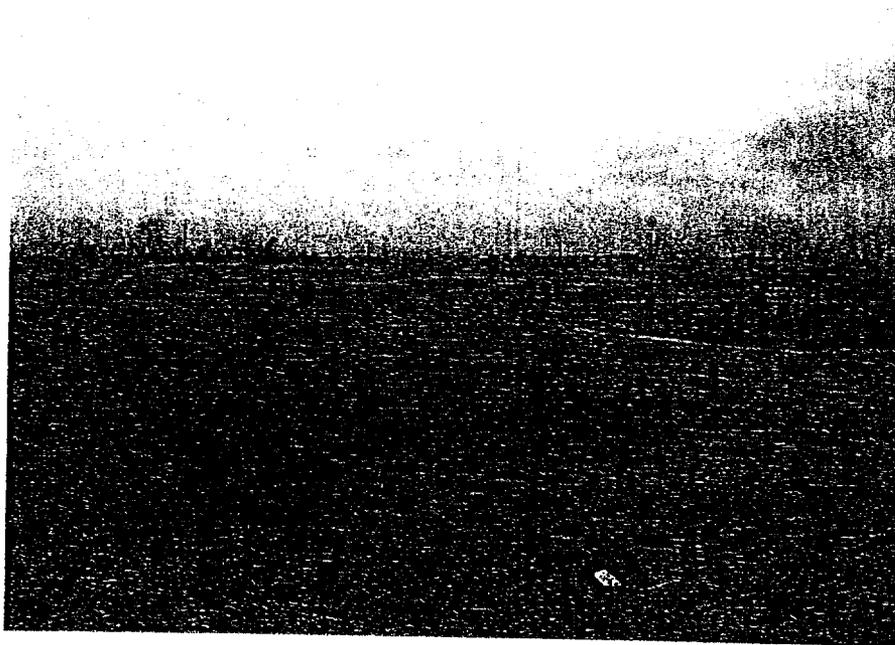


Her project experience includes preparation of ground water protection plans for industrial and commercial facilities, and groundwater monitoring and assessment plans for landfills, as well as environmental site assessments and environmental audits. She has conducted site investigations on commercial, industrial, and governmental facilities to determine the extent of contamination in soils and groundwater and has developed corrective action plans. She is experienced in every facet of underground storage tank closures including the preparation of site characterization and corrective action plans.

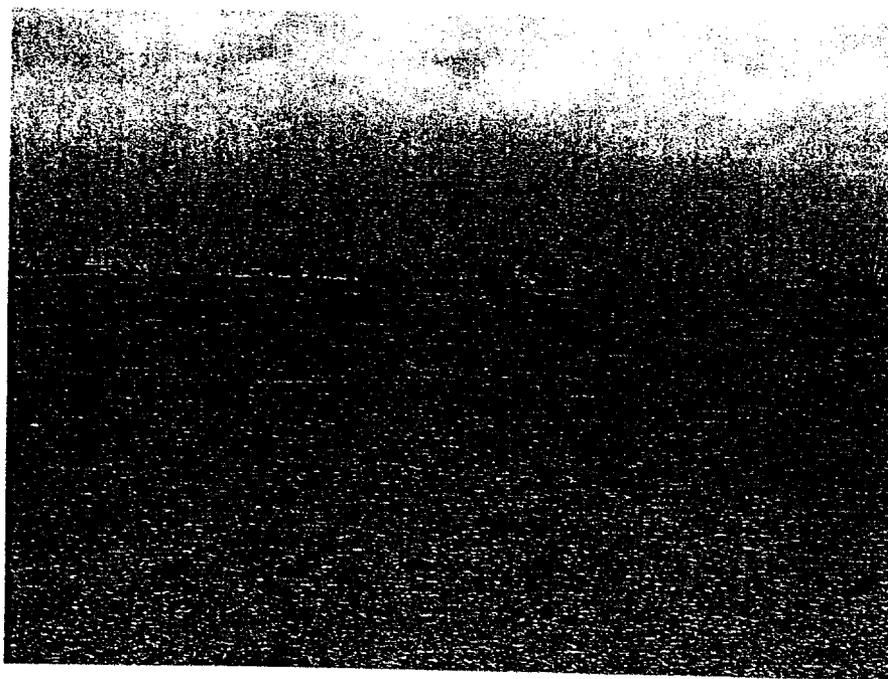
Ms. Bush possesses a detailed working knowledge of the environmental regulations. This knowledge allows her to assist clients in achieving and maintaining compliance with the numerous environmental regulations. She has served as an expert witness for clients in litigation involving environmental and regulatory matters. She routinely participates in environmental seminars, speaking on such topics as newly enacted environmental regulations and environmental compliance issues.

Ms. Bush also serves on the waste subcommittee of the Kentucky Chamber of Commerce. On behalf of the Chamber, this committee routinely provides comments to the Natural Resources and Environmental Protection Cabinet and legislative committees on proposed regulations and legislation.

**APPENDIX B – PHOTOGRAPHIC JOURNAL**



*Photo 1: View of subject property from US 62 right-of-way*



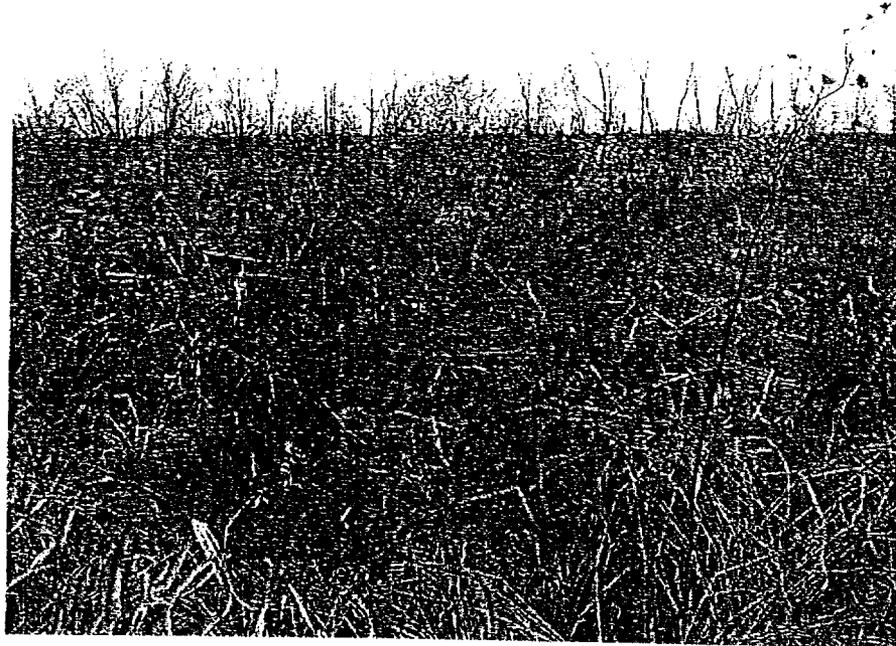
*Photo 2: View across subject property towards southeast*

**Commonwealth  
Technology, Inc.**

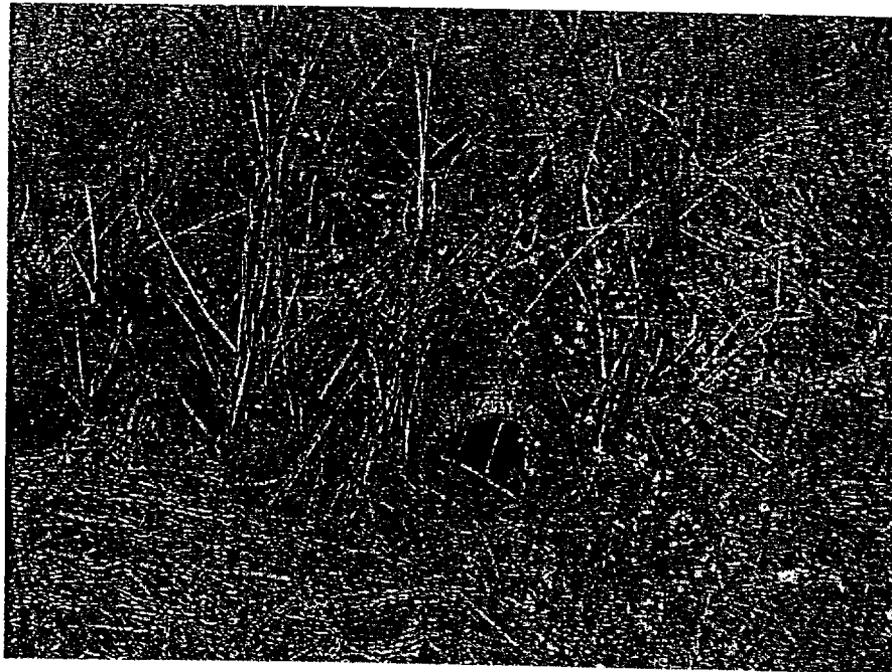


*Environmental Consulting Division*  
Lexington, KY • Louisville, KY

**SITE PHOTOGRAPHS**  
Cynthiana Industrial Park  
Leesburg Road/Smith Martin Lane  
Cynthiana, Kentucky



*Photo 3: Area of old foundation*



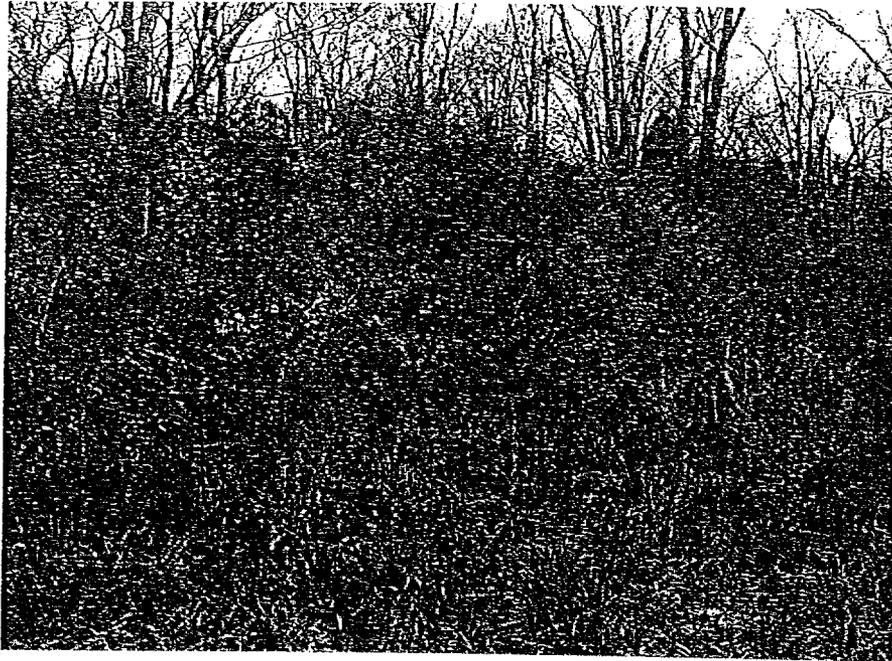
*Photo 4: Discarded transite pipe*

**Commonwealth  
Technology, Inc.**

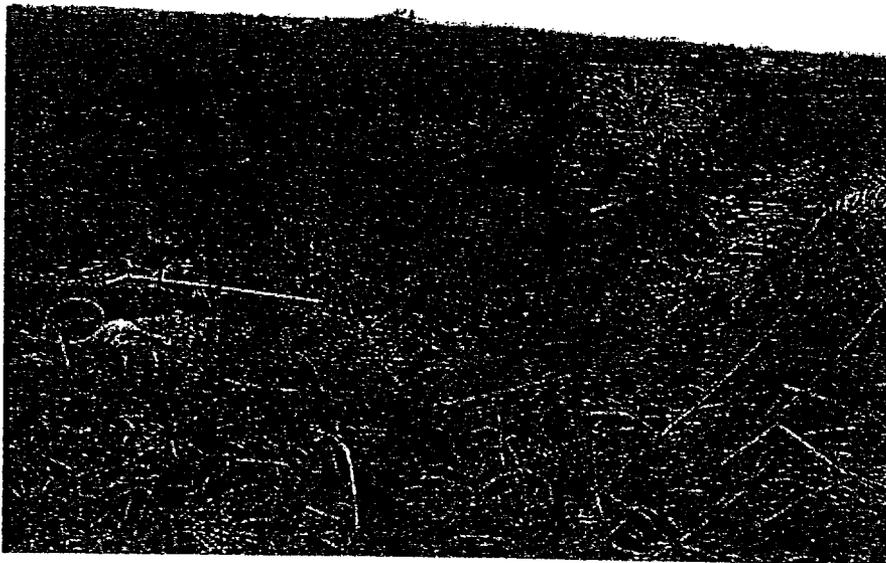


*Environmental Consulting Division*  
Lexington, KY • Louisville, KY

**SITE PHOTOGRAPHS**  
Cynthiana Industrial Park  
Leesburg Road/Smith Martin Lane  
Cynthiana, Kentucky



*Photo 5: Area of heavy vegetation, visibility limited*



*Photo 6: Small dump site*

**Commonwealth  
Technology, Inc.**

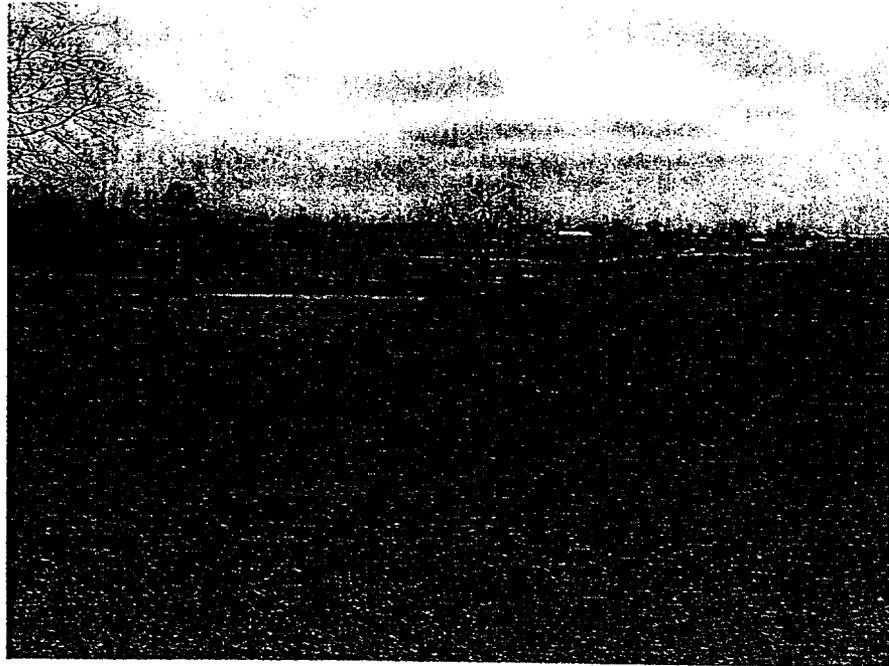


*Environmental Consulting Division*  
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**SITE PHOTOGRAPHS**  
Cynthiana Industrial Park  
Leesburg Road/Smith Martin Lane  
Cynthiana, Kentucky



*Photo 7: Construction staging area*



*Photo 8: Pond*

**Commonwealth  
Technology, Inc.**



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Lexington, KY • Louisville, KY

**SITE PHOTOGRAPHS**  
Cynthiana Industrial Park  
Leesburg Road/Smith Martin Lane  
Cynthiana, Kentucky

**APPENDIX C – REGULATORY RECORDS SEARCH**



## **The EDR-Radius Map with GeoCheck®**

**Cynthiana Industrial Park  
Leesburg Rd/Smith Martin Lane  
Cynthiana, KY 41031**

**Inquiry Number: 0569854.1r**

**December 01, 2000**

## **The Source For Environmental Risk Management Data**

**3530 Post Road  
Southport, Connecticut 06490**

**Nationwide Customer Service**

**Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)**

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

LEESBURG RD/SMITH MARTIN LANE  
CYNTHIANA, KY 41031

#### COORDINATES

Latitude (North): 38.366800 - 38° 22' 0.5"  
Longitude (West): 84.334600 - 84° 20' 4.6"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 732869.9  
UTM Y (Meters): 4249670.5

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 2438084-C3 SHAWHAN, KY  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable " ) government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List  
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CERC-NFRAP..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CORRACTS..... Corrective Action Report  
RCRIS-TSD..... Resource Conservation and Recovery Information System  
RCRIS-LQG..... Resource Conservation and Recovery Information System  
RCRIS-SQG..... Resource Conservation and Recovery Information System  
ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SHWS..... State Haz. Waste  
SWF/LF..... Solid Waste Facilities List  
UST..... Underground Storage Tank Database

#### FEDERAL ASTM SUPPLEMENTAL

CONSENT..... CONSENT

## EXECUTIVE SUMMARY

ROD..... ROD  
Delisted NPL..... NPL Deletions  
FINDS..... Facility Index System/Facility Identification Initiative Program Summary Report  
HMIRS..... Hazardous Materials Information Reporting System  
MLTS..... Material Licensing Tracking System  
MINES..... Mines Master Index File  
NPL Lien..... NPL Liens  
PADS..... PCB Activity Database System  
RAATS..... RCRA Administrative Action Tracking System  
TRIS..... Toxic Chemical Release Inventory System  
TSCA..... Toxic Substances Control Act

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

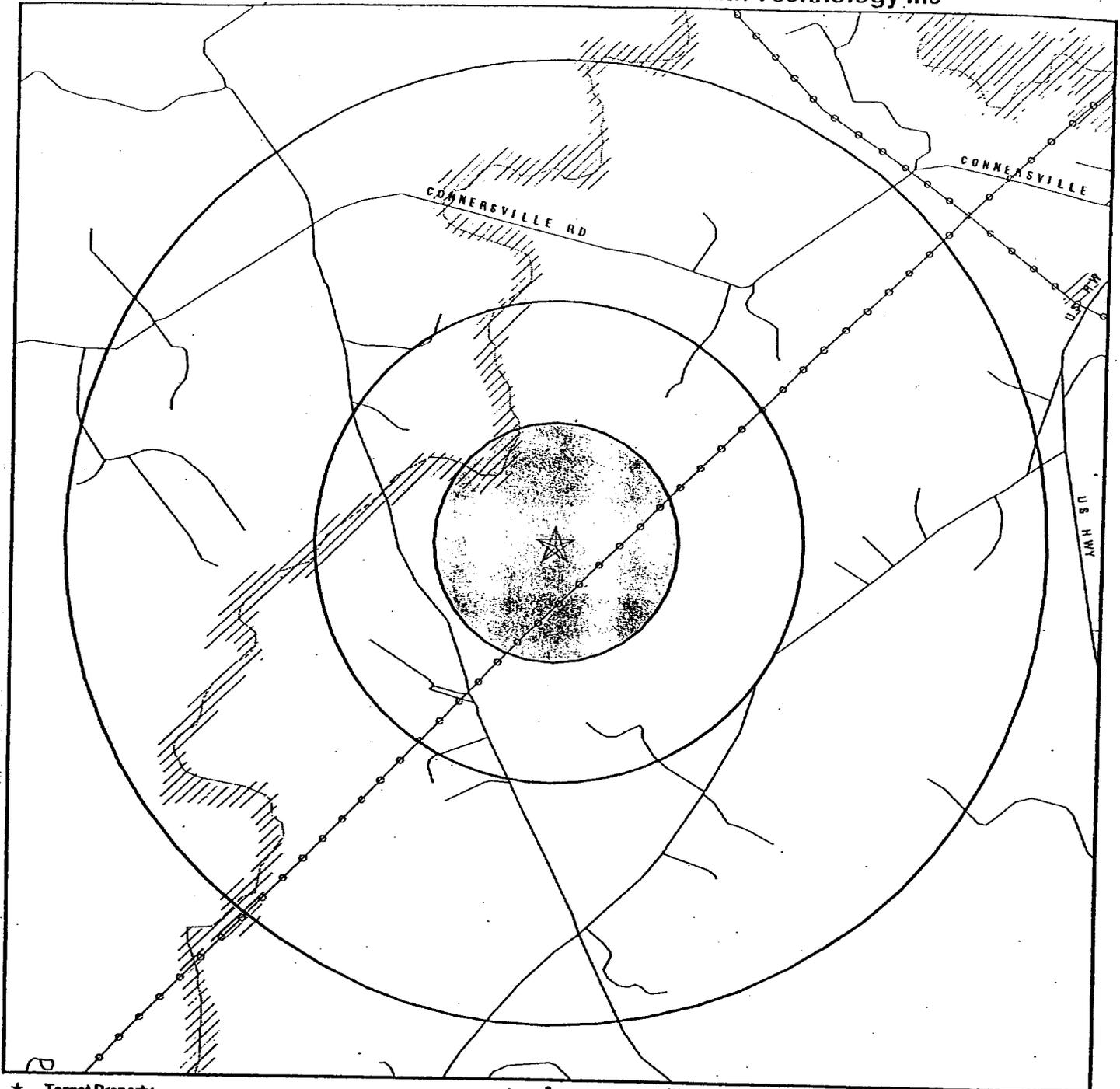
<u>Site Name</u>	<u>Database(s)</u>
TRINITY FITTING & FLANGE INC	RCRIS-SQG,FINDS,RCRIS-TSD
GREDE FOUNDRIES, INC., GREDE PERM CAST	CORRACTS,CERC-NFRAP,SHWS
SOLUTION DISPERSION INC	RCRIS-SQG,FINDS,TRIS
CITY OF CYNTHIANA	RCRIS-TSD,RAATS,CORRACTS
BUNDY TUBING COMPANY	RCRIS-SQG,FINDS,RCRIS-TSD
CYNTHIANA SCREW CORP	CORRACTS
HARRISON CO CYNTHIANA LANDFILL	SHWS
HARRISON COUNTY CITY OF CYNTHIANA	UST,SHWS
MULLEN PROPERTY	RCRIS-SQG,FINDS,CERC-NFRAP
NANCY D BAXTER	SWF/LF
PARCEL #7 (ITEM NO 6-117.08)	SWF/LF
EASTSIDE ELEMENTARY	UST
CYNTHIANA MOTOR CO	UST
NORTHFIELD OIL COMPANY	UST
WEBBER FARMS DISTRIBUTION CTR	UST
KOCOLENE FUELVFAST MAX SUNOCO # 46	RCRIS-SQG,FINDS,UST
PINE VILLA RESTAURANT	UST
NORTHSIDE ELEMENTARY SCHOOL	UST
MARYS PLACE	UST
MARSHALLS GROCERY	UST
CONNERSVILLE GROCERY	UST
JONES SHOP SERVICE STATION	UST
NANCYS HOUSE OF CERAMICS	UST
CATS COUNTRY CORNER	UST
BARNES MARKET	UST
TRICOM 36 GROCERY	UST
CLAYSVILLE R-B3K050	UST
WHITAKERS GARAGE	UST
HOPES SERVICE CENTER	UST
ABMI 475 0201820 (CARGILL INC)	UST
WESTSIDE ELEMENTARY SCHOOL	UST
CITY OF CYNTHIANA	UST
OLD CEDAR VALLEY GROCERY	UST
LEESBURG GROCERY	UST
LADISH CO KENTUCKY PLANT	UST
CYNTHIANA MOTOR CO	UST
HOBDAY PROPERTY	UST
HOBDAY ESTATE	UST
SUNRISE GENERAL STORE	UST
ASHLAND BRANDED MARKETING 009-000	RCRIS-SQG,FINDS
PINE VILLA RESTAURANT(ITEM #6-117.08)	RCRIS-SQG,FINDS
H. A. JONES CHEV-BUICK-OLDS	RCRIS-SQG,FINDS
US 27 NORTH SIDE WATER TOWER	RCRIS-SQG,FINDS
COCKRELL'S AUTO CENTER, INC.	RCRIS-SQG,FINDS
WARDROBE SERVICES	RCRIS-SQG,FINDS
JONES SHOP SERVICE STATION	RCRIS-SQG,FINDS
HINKLE CONTRACTING CORPORATION	RCRIS-SQG,FINDS
BARNES MARKET	RCRIS-SQG,FINDS
CAT'S COUNTRY CORNER	RCRIS-SQG,FINDS
CLEVELAND TWIST DRILL COMPANY	RCRIS-SQG,FINDS
HARRISON CO BUS GARAGE-BOE	RCRIS-SQG,FINDS
LUCAS EQUINE EQUIPMENT, INC.	RCRIS-SQG,FINDS
LUCAS EQUINE EQUIPMENT INC	RCRIS-SQG,FINDS
KENTUCKY DEPARTMENT OF HIGHWAYS	RCRIS-SQG
ASHLAND BRANDED MARKETING 009-0410198	RCRIS-SQG,FINDS
ODDVILLE MARKET	RCRIS-SQG,FINDS

## EXECUTIVE SUMMARY

BUNDY CORPORATION  
CYNTHIANA DAIRY QUEEN INC  
CYNTHIANA WTP  
CYNTHIANA STP  
USARMY CYNTHIANA ARMORY  
CITY OF CYNTHIANA  
SOUTHERN STATES/CYNTHIANA COOP

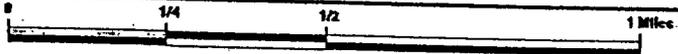
FINDS,RCRIS-LQG,TRIS  
FINDS  
FINDS  
FINDS  
FINDS  
FINDS  
FINDS

OVERVIEW I P - 0569854.1r - Commonwealth Technology Inc

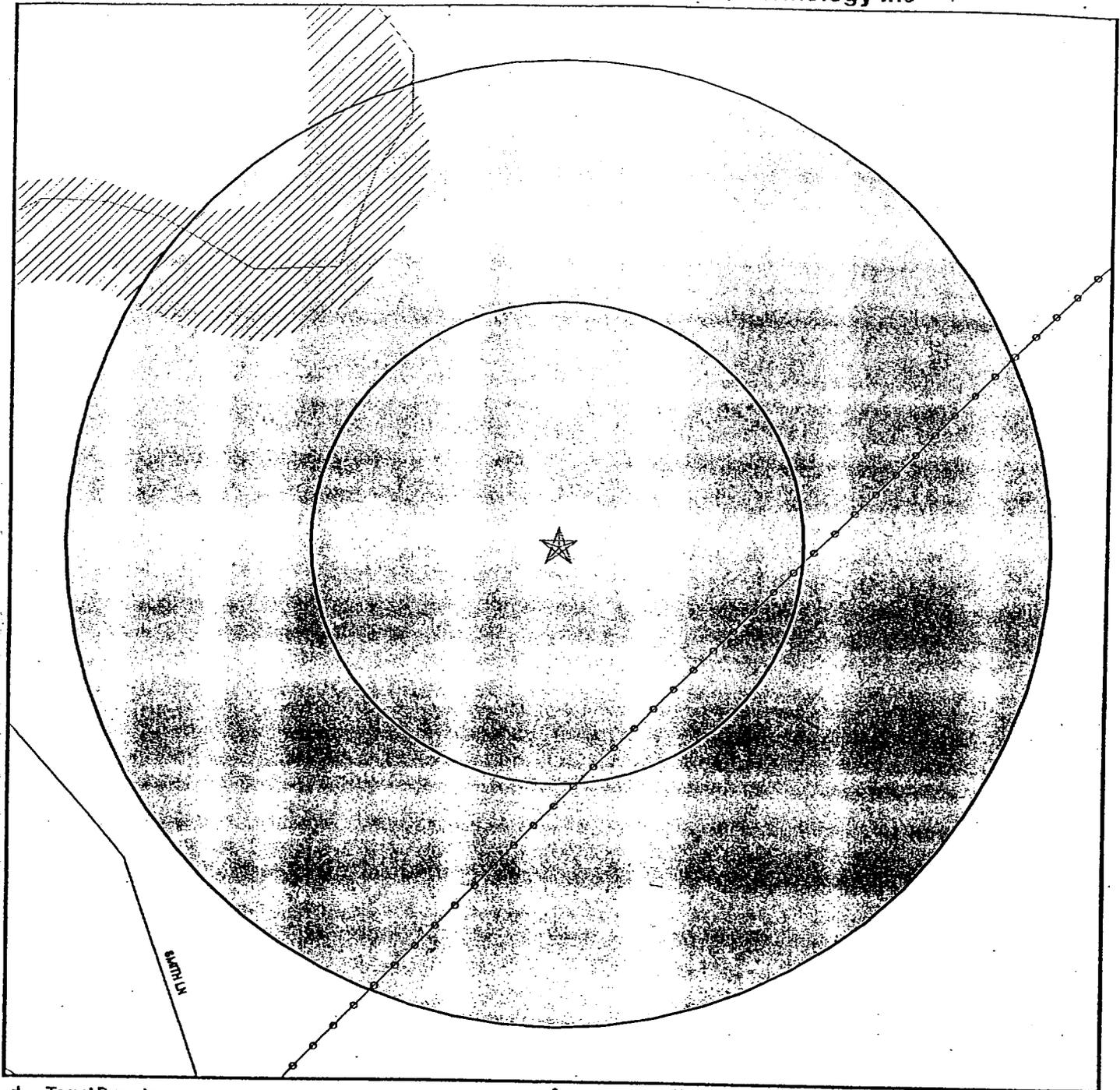


- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites (if requested)
- ▨ National Priority List Sites
- ▩ Landfill Sites

- ⚡ Power transmission lines
- ⚡ Oil & Gas pipelines
- ▨ 100-year flood zone
- ▩ 500-year flood zone



<p><b>TARGET PROPERTY:</b>  <b>ADDRESS:</b>  <b>CITY/STATE/ZIP:</b>  <b>LAT/LONG:</b></p>	<p>Cynthiana Industrial Park                  Leesburg Rd/Smith Martin Lane                  Cynthiana KY 41031                  38.3668 / 84.3346</p>	<p><b>CUSTOMER:</b>  <b>CONTACT:</b>  <b>INQUIRY #:</b>  <b>DATE:</b></p>	<p>Commonwealth Technology Inc                  Gerry Fister                  0569854.1r                  December 01, 2000 1:31 pm</p>
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- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites (if requested)
- ⋈ Sensitive Receptors
- ▨ National Priority List Sites
- ▨ Landfill Sites

- ⚡ Power transmission lines
- ⚡ Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone



<p><b>TARGET PROPERTY:</b> Cynthiana Industrial Park  <b>ADDRESS:</b> Leesburg Rd/Smith Martin Lane  <b>CITY/STATE/ZIP:</b> Cynthiana KY 41031  <b>LAT/LONG:</b> 38.3668 / 84.3346</p>	<p><b>CUSTOMER:</b> Commonwealth Technology Inc  <b>CONTACT:</b> Gery Fister  <b>INQUIRY #:</b> 0569854.1r  <b>DATE:</b> December 01, 2000 1:31 pm</p>
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## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.000	0	0	0	0	NR	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		1.000	0	0	0	0	NR	0
CORRACTS		0.500	0	0	0	0	NR	0
RCRIS-TSD		1.000	0	0	0	NR	NR	0
RCRIS Lg. Quan. Gen.		0.500	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.500	0	0	0	NR	NR	0
ERNS		0.500	0	0	0	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
State Haz. Waste		1.000	0	0	0	0	NR	0
State Landfill		1.000	0	0	0	0	NR	0
UST		0.250	0	0	NR	NR	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		0.500	0	0	0	0	NR	0
HMIRS		0.500	0	0	0	NR	NR	0
MLTS		0.500	0	0	0	NR	NR	0
MINES		0.500	0	0	0	NR	NR	0
NPL Liens		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		0.500	0	0	0	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
<b><u>EDR PROPRIETARY DATABASES</u></b>								
Coal Gas		N/A	N/A	N/A	N/A	N/A	N/A	N/A
AQUIFLOW	- see EDR Physical Setting Source Addendum							

TP = Target Property

NR = Not Requested at this Search Distance

\* Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Site \_\_\_\_\_ Database(s) \_\_\_\_\_ EDR ID Number  
EPA ID Number

Coal Gas Site Search: EDR does not presently have coal gas site information available in this state.

NO SITES FOUND

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Databases(s)	Facility ID
CYNTHIANA	U003415191	MULLEN PROPERTY	RT 1 BOX 243	41031	UST	1003049
CYNTHIANA	1000928346	ASHLAND BRANDED MARKETING 009-000	ROUTE 1, CONNERSVILLE PIKE	41031	RCRIS-SQG, FINDS	
CYNTHIANA	1002919899	CYNTHIANA DAIRY QUEEN INC	HWY 127 S	41031	FINDS	
CYNTHIANA	U003415982	NANCY D BAXTER	HWY 1284	41031	UST	5460049
CYNTHIANA	1000987252	PINE VILLA RESTAURANT(ITEM #6-117.08)	ROUTE 2 US 27	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U001442010	PARCEL #7 (ITEM NO 6-117.08)	RT 2 US 27	41031	UST	
CYNTHIANA	U000811278	EASTSIDE ELEMENTARY	RT 2	41031	UST	3988049
CYNTHIANA	1000518468	CYNTHIANA MOTOR CO	US 27 S	41031	UST	645049
CYNTHIANA	1000908218	NORTHFIELD OIL COMPANY	US 27 NORTH	41031	RCRIS-SQG, FINDS, UST	8645049
CYNTHIANA	1001214104	H. A. JONES CHEV-BUICK-OLDS	US 27 SOUTH	41031	RCRIS-SQG, FINDS	2376049
CYNTHIANA	1000271872	US 27 NORTH SIDE WATER TOWER	US 27 N	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U001184189	COCKRELL'S AUTO CENTER, INC.	HWY 27 S. OF CYNTHIANA	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U001623706	WEBBER FARMS DISTRIBUTION CTR	HWY 27 S	41031	UST	6659049
CYNTHIANA	U003415273	KOCOLENE FUELFAST MAX SUNOCO # 48	HWY 27 S	41031	UST	2820049
CYNTHIANA	U003418034	PINE VILLA RESTAURANT	HWY 27 N	41031	UST	1013049
CYNTHIANA	U003653844	NORTHSIDE ELEMENTARY SCHOOL	US 27 RT 2	41031	UST	846049
CYNTHIANA	U001180994	MARYS PLACE	HWY 27 N	41031	UST	10000450
CYNTHIANA	1000461465	MARSHALLS GROCERY	RT 3	41031	UST	2382049
CYNTHIANA	U003701289	WARDROBE SERVICES	ROUTE 3, ODDVILLE AVE.	41031	RCRIS-SQG, FINDS	
CYNTHIANA	1001228312	CONNERSVILLE GROCERY	HWY 32	41031	UST	10000564
CYNTHIANA	1000271191	JONES SHOP SERVICE STATION	HWY 32/36	41031	RCRIS-SQG, FINDS	
CYNTHIANA	1000193850	HINKLE CONTRACTING CORPORATION	HWY 353, RUSSELL CAVE ROAD	41031	RCRIS-SQG, FINDS	
CYNTHIANA	1001218542	BUNDY CORPORATION	HIGHWAY 356	41031	FINDS, RCRIS-LQG, TRIS	
CYNTHIANA	1001228240	BARNES MARKET	ROUTE 36	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U003415253	CAT'S COUNTRY CORNER	RT 36 AT POINDEXTER RD	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U00355204	JONES SHOP SERVICE STATION	RT 4 HWY 32/36	41031	UST	1012049
CYNTHIANA	U001181010	NANCYS HOUSE OF CERAMICS	RT 4	41031	UST	2392009
CYNTHIANA	U00355009	BARNES MARKET	RT 5	41031	UST	2397049
CYNTHIANA	U00355371	TRICOM 36 GROCERY	RT 6 BOX 386	41031	UST	1005049
CYNTHIANA	1000429874	CLEVELAND TWIST DRILL COMPANY	RR 6 HWY 36	41031	UST	5394049
CYNTHIANA	U001182862	CLAYSVILLE R-89K050	RT 6, W. PLEASANT ST	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U003180501	WHITAKERS GARAGE	US 62 JODY RIDGE RD	41031	UST	4022049
CYNTHIANA	U00355013	HOPE'S SERVICE CENTER	US 62	41031	UST	1004049
CYNTHIANA	U001184479	ABMI 475 0201620 (CARGILL INC)	HWY 62 E	41031	UST	1006049
CYNTHIANA	1001228360	HARRISON CO BUS GARAGE-BOE	RTE 68	41031	UST	7162049
CYNTHIANA	U001442012	WESTSIDE ELEMENTARY SCHOOL	ROUTE 7	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U001442091	CITY OF CYNTHIANA	RT 7	41031	UST	647049
CYNTHIANA	1002819405	CYNTHIANA WTP	ABADALLAH PARK	41031	UST	693049
CYNTHIANA	S103693640	HARRISON CO CYNTHIANA LANDFILL	ABDALLAH PK	41031	FINDS	
CYNTHIANA	1000518272	LUCAS EQUINE EQUIPMENT, INC.	COOK ROAD	41031	SWFLF	SW04900002
CYNTHIANA	100148234	LUCAS EQUINE EQUIPMENT INC	NORTH HIGHWAY 27	41031	RCRIS-SQG, FINDS	
CYNTHIANA	U003416354	OLD CEDAR VALLEY GROCERY	SOUTH HWY 27	41031	RCRIS-SQG	
			US HWY 27	41031	UST	9999771

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
CYNTHIANA	100262719	TRINITY FITTING & FLANGE INC	LADISH ROAD, RTE 4	41031	RCRIS-SQG, FINDS, RCRIS-TSD, CORRACTS, CERC-NFRAP, SHWS	2381049
CYNTHIANA	U001180993	LEESBURG GROCERY	LEESBURG PIKE	41031	UST	
CYNTHIANA	1002918164	CYNTHIANA STP	NORTH LOCUST ST	41031	FINDS	
CYNTHIANA	1000450918	KENTUCKY DEPARTMENT OF HIGHWAYS	MAINTENANCE BARN, ROUTE 1,	41031	RCRIS-SQG, FINDS	
CYNTHIANA	1000188825	GREDE FOUNDRIES, INC., GREDE PERM CAST	NEW LAIR ROAD	41031	RCRIS-SQG, FINDS, TRIS,	
CYNTHIANA	S103593543	HARRISON COUNTY CITY OF CYNTHIANA	P O BOX 67	41031	RCRIS-TSD, RAATS, CORRACTS	SW064900006
CYNTHIANA	1002918602	USARMY CYNTHIANA ARMORY	W PLEASANT ST	41031	SWFLF	
CYNTHIANA	1002914869	CITY OF CYNTHIANA	E PLEASANT ST	41031	FINDS	
CYNTHIANA	1001680910	CITY OF CYNTHIANA	E PLEASANT ST	41031	SHWS	
CYNTHIANA	1002918010	SOUTHERN STATES/CYNTHIANA COOP	RAILROAD AVE	41031	FINDS	
CYNTHIANA	1000828633	ASHLAND BRANDED MARKETING 009-0410198	KY ROUTE 32 WEST	41031	RCRIS-SQG, FINDS	
CYNTHIANA	1000409476	CYNTHIANA SCREW CORP	US RTE 82 AT KY RIVER	41031	RCRIS-SQG, FINDS, CERC-NFRAP	
CYNTHIANA	U00355140	LADISH CO KENTUCKY PLANT	RURAL ROUTE 4	41031	UST	1229049
CYNTHIANA	U000806638	CYNTHIANA MOTOR CO	S WALNUT ST	41031	UST	2380049
CYNTHIANA	1001123851	SOLUTION DISPERSION INC	130 WATER WORKS AVE	41031	RCRIS-SQG, FINDS, RCRIS-TSD, CORRACTS	
CYNTHIANA	U001441279	BUNDY TUBING COMPANY	WHITE OAK PIKE	41031	UST, SHWS	691049
ODDVILLE	1001228316	ODDVILLE MARKET	US 62 BEAVER BAPTIST RD	41031	RCRIS-SQG, FINDS	
SUNRISE	U003415209	HOBDAV PROPERTY	RT 2 BOX 269/SUNRISE-ODDVILLE RD	41031	UST	1010049
SUNRISE	U003415232	HOBDAV ESTATE	RT 2 HWY 1284	41031	UST	1011049
SUNRISE	U003416048	SUNRISE GENERAL STORE	RT 2 HWY 1284	41031	UST	685049

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## FEDERAL ASTM STANDARD RECORDS

### **NPL: National Priority List**

Source: EPA  
Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC).

Date of Government Version: 06/13/00  
Date Made Active at EDR: 07/06/00  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/27/00  
Elapsed ASTM days: 9  
Date of Last EDR Contact: 11/06/00

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA  
Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/16/00  
Date Made Active at EDR: 08/16/00  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/05/00  
Elapsed ASTM days: 72  
Date of Last EDR Contact: 08/28/00

### **CERCLIS-NFRAP: No Further Remedial Action Planned**

Source: EPA  
Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 04/16/00  
Date Made Active at EDR: 08/16/00  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/05/00  
Elapsed ASTM days: 72  
Date of Last EDR Contact: 08/28/00

### **CORRACTS: Corrective Action Report**

Source: EPA  
Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/20/00  
Date Made Active at EDR: 08/01/00  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/12/00  
Elapsed ASTM days: 50  
Date of Last EDR Contact: 09/12/00

### **RCRIS: Resource Conservation and Recovery Information System**

Source: EPA/NTIS  
Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/21/00  
Date Made Active at EDR: 07/31/00  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 07/10/00  
Elapsed ASTM days: 21  
Date of Last EDR Contact: 11/09/00

**ERNS: Emergency Response Notification System**  
Source: EPA/NTIS

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 08/08/00  
Date Made Active at EDR: 09/06/00  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 08/11/00  
Elapsed ASTM days: 26  
Date of Last EDR Contact: 10/31/00

## FEDERAL ASTM SUPPLEMENTAL RECORDS

**BRS: Biennial Reporting System**

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/97  
Database Release Frequency: Biennially

Date of Last EDR Contact: 09/18/00  
Date of Next Scheduled EDR Contact: 12/18/00

**CONSENT: Superfund (CERCLA) Consent Decrees**

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A  
Database Release Frequency: Varies

Date of Last EDR Contact: N/A  
Date of Next Scheduled EDR Contact: N/A

**ROD: Records Of Decision**

Source: NTIS

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/31/99  
Database Release Frequency: Annually

Date of Last EDR Contact: 10/12/00  
Date of Next Scheduled EDR Contact: 01/08/01

**DELISTED NPL: NPL Deletions**

Source: EPA

Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/13/00  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/06/00  
Date of Next Scheduled EDR Contact: 02/05/01

**FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA

Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/07/00  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/10/00  
Date of Next Scheduled EDR Contact: 01/08/01

**HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation  
Telephone: 202-366-4526

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/99  
Database Release Frequency: Annually

Date of Last EDR Contact: 10/24/00  
Date of Next Scheduled EDR Contact: 01/22/01

**MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/23/00  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/10/00  
Date of Next Scheduled EDR Contact: 01/08/01

**MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Date of Government Version: 08/01/98  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/02/00  
Date of Next Scheduled EDR Contact: 01/01/01

**NPL LIENS: Federal Superfund Liens**

Source: EPA  
Telephone: 205-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 08/21/00  
Date of Next Scheduled EDR Contact: 11/20/00

**PADS: PCB Activity Database System**

Source: EPA  
Telephone: 202-260-3936

PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/01/00  
Database Release Frequency: Annually

Date of Last EDR Contact: 08/15/00  
Date of Next Scheduled EDR Contact: 11/13/00

**RAATS: RCRA Administrative Action Tracking System**

Source: EPA  
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 09/12/00  
Date of Next Scheduled EDR Contact: 12/11/00

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/97

Database Release Frequency: Annually

Date of Last EDR Contact: 09/25/00

Date of Next Scheduled EDR Contact: 12/25/00

## TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-1444

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/98

Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 09/12/00

Date of Next Scheduled EDR Contact: 12/11/00

## STATE OF KENTUCKY ASTM STANDARD RECORDS

### SHWS: State Leads List

Source: Department of Environmental Protection

Telephone: 502-564-6716

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/16/00

Date Made Active at EDR: 06/28/00

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/09/00

Elapsed ASTM days: 50

Date of Last EDR Contact: 10/03/00

### LF: Solid Waste Facilities List

Source: Department of Environmental Protection

Telephone: 502-564-6716

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/16/00

Date Made Active at EDR: 05/30/00

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/09/00

Elapsed ASTM days: 21

Date of Last EDR Contact: 08/21/00

### LUST: N/A

Source: Department of Environmental Protection

Telephone: 502-564-6716

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: N/A

Date Made Active at EDR: N/A

Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: N/A

Elapsed ASTM days: 0

Date of Last EDR Contact: 08/15/00

### UST: Underground Storage Tank Database

Source: Department of Environmental Protection

Telephone: 502-564-6716

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/29/00  
Date Made Active at EDR: 11/09/00  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 10/10/00  
Elapsed ASTM days: 30  
Date of Last EDR Contact: 09/28/00

## EDR PROPRIETARY DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

### **Disclaimer Provided by Real Property Scan, Inc.**

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## HISTORICAL AND OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines/Electrical Transmission Lines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 1999 from the U.S. Fish and Wildlife Service.

## GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

CYNTHIANA INDUSTRIAL PARK  
LEESBURG RD/SMITH MARTIN LANE  
CYNTHIANA, KY 41031

### TARGET PROPERTY COORDINATES

Latitude (North):	38.366798 - 38° 22' 0.5"
Longitude (West):	84.334602 - 84° 20' 4.6"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	732869.9
UTM Y (Meters):	4249670.5

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2438084-C3 SHAWHAN, KY  
Source: USGS 7.5 min quad index

## GENERAL TOPOGRAPHIC GRADIENT AT TARGET PROPERTY

Target Property: General NW

Source: General Topographic Gradient has been determined from the USGS 1 Degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## FEMA FLOOD ZONE

Target Property County  
HARRISON, KY

FEMA Q3 Flood  
Data Electronic Coverage  
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:  
Additional Panels in search area:

2103290075B / CBPP  
2103290088B / CBPP  
2103290125B / CBPP  
2103290126B / CBPP

## NATIONAL WETLAND INVENTORY

NWI Quad at Target Property  
SHAWHAN

NWI Electronic Coverage  
NO

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## AQUIFLOW®

Search Radius: 2.000 Miles.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### GEOLOGIC AGE IDENTIFICATION

Geologic Code:	O2
Era:	Paleozoic
System:	Ordovician
Series:	Middle Ordovician (Mohawkian)

#### ROCK STRATIGRAPHIC UNIT

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	LOWELL
Soil Surface Texture:	silt loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 40 inches

Depth to Bedrock Max: > 40 inches

Soil Layer Information						
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)
	Upper	Lower		AASHTO Group	Unified Soil	
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60
2	11 inches	23 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.20
3	23 inches	53 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.60 Min: 0.20
4	53 inches	57 inches	unweathered bedrock	Not reported	Not reported	Max: 0.06 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silty clay loam  
flaggy - silty clay loam  
flaggy - silty clay  
channery - silt loam

Surficial Soil Types: silty clay loam  
flaggy - silty clay loam  
flaggy - silty clay  
channery - silt loam

Shallow Soil Types: channery - silt loam  
silty clay loam

Deeper Soil Types: weathered bedrock  
loam  
silty clay

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH.DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

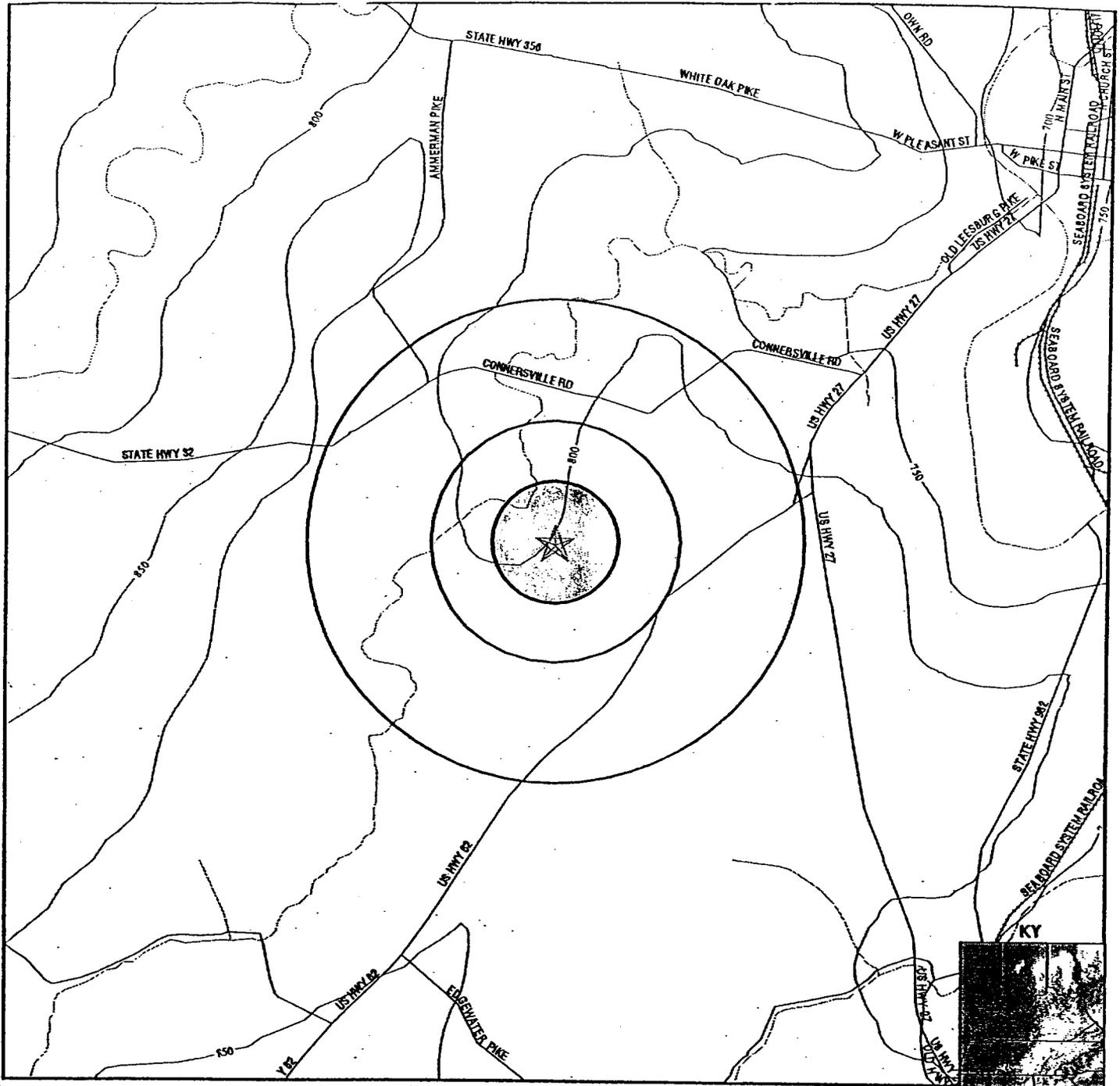
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

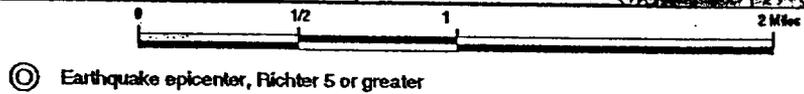
## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 056 54.1r



- ↘ Major Roads
- ↘ Contour Lines
- ⊙ Water Wells
- ⊙ Public Water Supply Wells
- ↑ Groundwater Flow Direction
- ⊙ Indeterminate Groundwater Flow at Location
- ⊙ Groundwater Flow Varies at Location
- Cluster of Multiple Icons



<p><b>TARGET PROPERTY:</b> Cynthiana Industrial Park  <b>ADDRESS:</b> Leesburg Rd/Smith Martin Lane  <b>CITY/STATE/ZIP:</b> Cynthiana KY 41031  <b>LAT/LONG:</b> 38.3668 / 84.3346</p>	<p><b>CUSTOMER:</b> Commonwealth Technology Inc  <b>CONTACT:</b> Gerry Fister  <b>INQUIRY #:</b> 0569854.1r  <b>DATE:</b> December 01, 2000 1:31 pm</p>
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**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS  
RADON**

**AREA RADON INFORMATION**

Federal EPA Radon Zone for HARRISON County: 1

- Note: Zone 1 indoor average level > 4 pCi/L
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L
- : Zone 3 indoor average level < 2 pCi/L

Zip Code: 41031

Number of sites tested: 5

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	0.640 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 1999 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Amdt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the national Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-260-2805

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-260-2805

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

**USGS Water Wells:** In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STATE RECORDS

#### Kentucky Well Data Files

Source: University of Kentucky, Geological Survey  
Telephone: 606-257-5500

### RADON

**Area Radon Information:** The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

**EPA Radon Zones:** Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

**Epicenters:** World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

A CULTURAL RECONNAISSANCE OF  
AN APPROXIMATELY 200 ACRE INDUSTRIAL PARK  
AT CYNTHIANA IN HARRISON COUNTY, KENTUCKY

KY SAI # 98-0217-0073  
Lead Agency - EDA  
Project No. NKY 0430

by

Dr. Jack M. Schock

Arrow Enterprises

1112 Cave Mill Road

Bowling Green, Kentucky 42104

Telephone (502) 843-1574

Fax (502) 843-8187

MARCH 1998



Report requested by Mr. Craig McAnelly  
Bluegrass Area Development District  
699 Perimeter Drive - Lexington, Kentucky 40517  
Telephone (606) 260-7917

ABSTRACT

Dr. Jack M. Schock of Arrow Enterprises conducted an archaeological reconnaissance of approximately 200 acres for a proposed Industrial Park at Cynthiana in Harrison County, Kentucky on March 26-27, 1998. The work was conducted at the request of Mr. Craig McAnelly of the Bluegrass Area Development District in Lexington, Kentucky.

The investigator located one archaeological site (15Hr44) and examined four 20th century barns and a non-site house location.

The Kentucky Clearinghouse Number is KY 98-0217-0073 and the Lead Agency is EDA.

The site is a 20th century house location with no National Register potential. No additional work is recommended for site 15Hr44 or the project area.

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## INTRODUCTION

Dr. Jack M. Schock of Arrow Enterprises conducted an archaeological reconnaissance of approximately 200 acres for a proposed Industrial Park at Cynthiana in Harrison County, Kentucky on March 26-27, 1998.

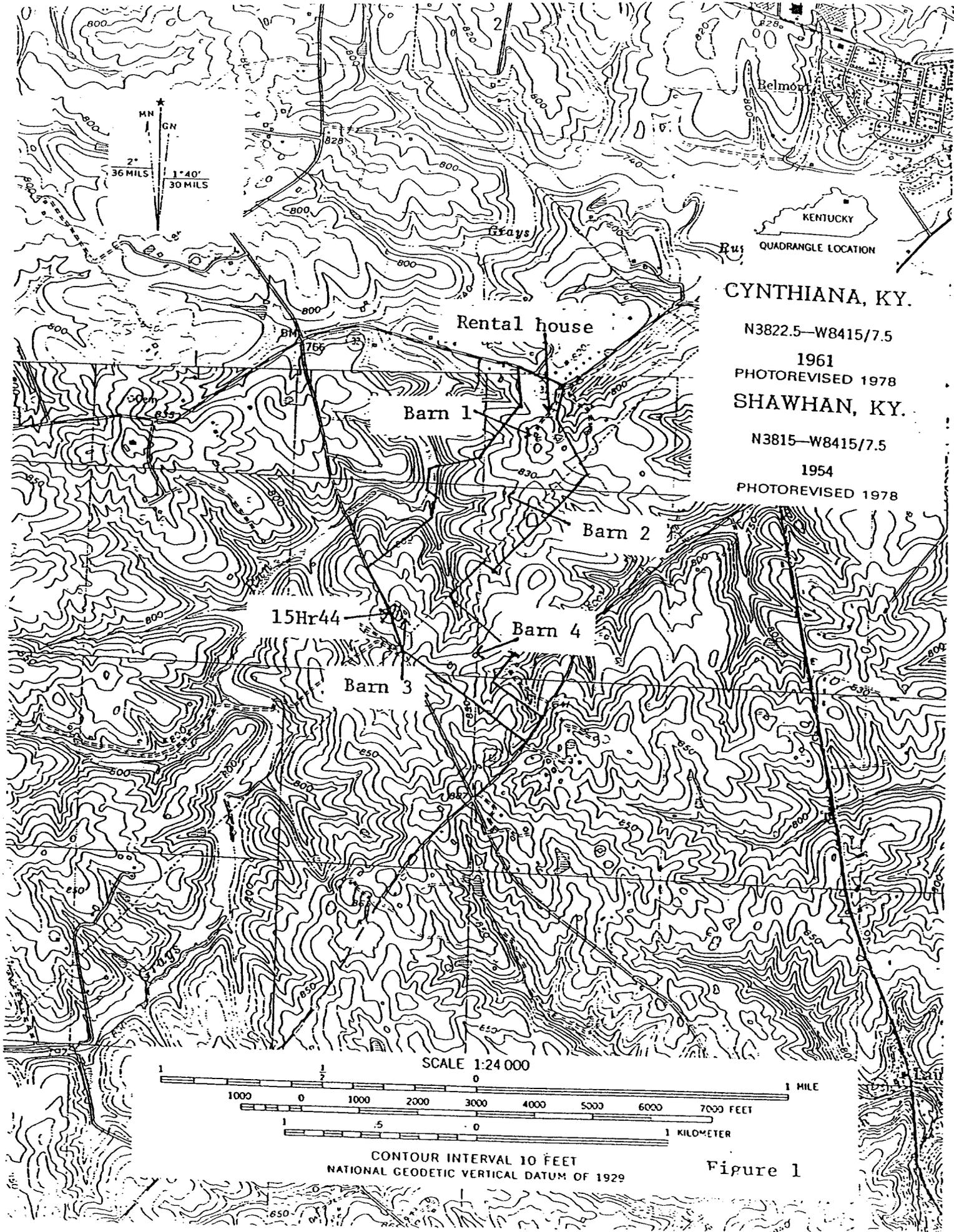
The work was conducted at the request of Mr. Craig McAnelly of the Bluegrass Area Development District in Lexington, Kentucky.

The Kentucky Clearinghouse Number is KY98-0217-0073 and the Lead Agency is EDA. One historic house site was located as a result of this investigation. The project is illustrated in Figure # 1.

This report is the result of an archaeological survey conducted to determine whether prehistoric or early historic archaeological sites will be affected by this project. The term "historic" is being used here to refer to pre-1040 sites. The survey also included examining a buffer zone averaging 100 feet in width along the outside of the project limits. Such surveys are required on various federally funded or regulated projects to determine whether (1) any archaeological sites are present which will be affected by the project and (2) whether such sites meet the national Register of Historic Places criteria as expressed by 36 CFR 60.6. The following information is quoted from 36 CFR Part 66 (in Federal Register, Vol. 42, No. 19—Friday, January 28, 1977):

### **APPENDIX B—Guidelines for the Location and Identification of Historic Properties Containing Scientific, Prehistoric, Historical or Archaeological Data.**

In order to notify the Secretary of the potential loss or destruction of significant scientific, prehistoric, historical, or archaeological data pursuant to sections 2, 3, and 4 of the Act, in a manner that will permit the Secretary to act effectively in response to this notification, it is necessary that the agency provide appropriate documentation concerning the nature and significance of all historic properties, subject to impact that may contain such data. It is recommended that such documentation be generated by agencies in the course of their planning activities carried out under the authorities of



CYNTHIANA, KY.

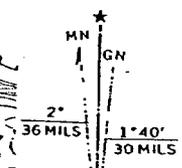
N3822.5-W8415/7.5

1961  
PHOTOREVISED 1978

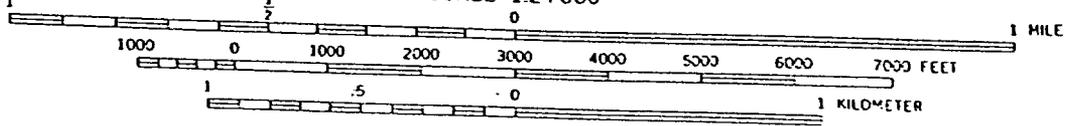
SHAWHAN, KY.

N3815-W8415/7.5

1954  
PHOTOREVISED 1978



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Figure 1

the National Environmental Policy Act of 1969 (Pub. L. 91-190) (NEPA), the National Historic Preservation Act of 1966 (Pub. L. 89-665 as amended) (NHPA), the National Historic Preservation Act of 1966 (Pub. L. 89-665 as amended) (NHPA), Executive Order 11593, and related authorities.

It is important that agencies understand the relationship among NEPA, such general historic preservation authorities as the NHPA, and the Archaeological and Historic Preservation Act. NEPA mandates the evaluation of project impacts on cultural resources. One kind of cultural resource is the historic property which is the concern of the NHPA and Executive Order 11593. Section 106 of the NHPA sets forth specific actions to be taken when this kind of cultural resources is subject to effect. Some historic properties contain scientific, prehistoric, historical, and archaeological data; the Archaeological and Historic Preservation Act of 1974 provides mechanisms for the recovery of such data if and when the planning processes provided for by NEPA, NHPA, and related authorities have resulted in the conclusion that data recovery constitutes the most prudent and feasible method of impact mitigation.

The objectives of this archaeological reconnaissance were (1) to locate all prehistoric and historic archaeological sites within the property limits and (2) to determine the nature of any affected sites. This latter objective also involved determining the approximate spatial extent of each site, determining the gross cultural affiliation of each site, and recommending priorities for each site. Such information was utilized in determining the significance of each site with respect to local and/or archaeological problems.

The term "archaeological site" is used here where there is evidence of former human activity. Site numbering nomenclature is based on the Smithsonian system. The Kentucky prefix (15) may be omitted for convenience.

## ENVIRONMENT

### Geology and Geography

Physiographically the project is in the Bluegrass Region and contains a topography which is undulating to hilly (Webb & Funkhouser 1932:171). The geologic deposits within the project area are Ordovician (Cuppels 1973).

The archaeological site is located upon Faywood-Loradale soil associations. Site 15Hr44 is on Loradale silt loam.

### CLIMATE

Both temperature and precipitation data for the project area are gathered at Lexington, Kentucky. The mean annual temperature is 54.9 degrees. The maximum high temperature recorded was 103.0 degrees and the maximum low was -21.0 degrees. The average annual precipitation is 45.68 inches and mean annual snowfall is 15.7 inches. The prevailing winds are south (U.S. Department of Commerce 1991).

### FAUNA

Mammals which may occasionally be found in the general area of the project include the white tailed deer, the red fox, ground hog, striped skunk, cottontail rabbit, raccoon, opossum, eastern mole, gray squirrel, and fox squirrel. Other possible animals include the muskrat, mink, long-tailed weasel, and spotted skunk. Mammals which would have been present prehistorically include the black bear, cougar, bobcat, and timber wolf. Edible birds would have included quail, passengers pigeons, and turkey. Frogs would also have been available and probably fish.

### FLORA

According to Dice (1943:16): The Carolina biotic province forms the middle section of the great deciduous forest lying along the Atlantic Coast of North America. The Climax association—of the Appalachian Plateaus, is mixed mesophytic.

Major tree species in the area include red oak, white oak, beech, hickory, yellow poplar, and soft maples (U. S. Department of Commerce 1969 and U. S. Department of Agriculture 1972).

## ARCHAEOLOGICAL BACKGROUND

The archaeological background is divided into two sections: (1) county background and (2) previous investigations.

### HARRISON COUNTY BACKGROUND

Harrison county was formed out of parts of Bourbon and Scott Counties in 1783. It was the 17th county founded in Kentucky and was named after Col. Benjamin Harrison, who was at that time a representative in the Kentucky Legislative and was from Bourbon County (Collins 1874:321).

Cynthiana is the county seat of Harrison County and is derived from the names of Cynthia and Anne, daughters of Robert Harris who originated the town.

The population of Cynthiana in 1870 was 1,771 and the town contained 16 grocery stores, 10 lawyers, 9 doctors, 5 hotels, 3 distilleries, 5 wholesale whiskey houses, and 9 saloons and restaurants (Collins 1874:321). Harrison County was the location for 30 distilleries which brewed 50,000 barrels of whiskey per year.

Cynthiana's population in 1990 was 6,497. There is now a business strip along highway 27 which is southwest of Cynthiana and numerous stores are located in this area.

Although various crops are grown in Harrison County, cattle and horses are abundant in the grass covered fields. Tobacco is a major cash crop. There are also numerous early to mid 1800's mansions and houses located in the countryside of this county.

### PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Webb & Funkhouser (1932:170:172) reported three sites in Harrison County. Site 15Hr2 (a mound) was slightly northeast of this project. Forty (40) sites have been recorded since 1932 in Harrison County although numerous sites should be present along the Licking River.

Niquette (1985) tested site 15Hr20 near Berry, Kentucky. McGraw located site 15Hr22 at Berry, Kentucky during a bridge replacement survey. O'Malley (N.D.) performed soil conductivity surveying at an unnamed pioneer station in Harrison County. Highway surveys which located no sites in Harrison County were conducted by Esarey (1992), Janzen and Boldin (1990), Meadows and

Richmond (1997), and Schock (1994). Other negative surveys include an electric sub-station site by Janzen (1991), an airport survey by Schock (1994), three housing projects by Schock (1989a, 1989b, and 1990a), a water tank site by Schock (1990b), and a community service center survey by Schock (1993).

Stallings and Ross-Stallings (1992a) examined a 15 acre industrial site at Cynthiana and located an isolated chert flake and a bulldozed house site. Individuals also surveyed a 25 acre industrial site at Cynthiana and located nothing (Stallings and Ross-Stallings (1992b). A limestone knife was reported from Harrison County by Taylor (1971). One of the more interesting sites was the Adams Mastodon Site dating to the Paleo-Indian period (Walters 1988). None of these sites are in close proximity to this project.

### SURVEY PREDICTIONS

Previous archaeological work in Harrison County has located numerous sites on knolls and ridges adjacent to streams. Prehistoric sites were expected on knolls adjacent to the project. Two houses are also illustrated on the topographic map (Figure # 1).

### ARCHAEOLOGICAL PROCEDURES

Project maps were provided by the client. The archaeological procedures included checking with the Kentucky Heritage Council regarding a topographic map of the area which illustrated known site locations. No sites were shown within or close to this project.

The basic field procedure was to walk over the proposed project to check for exposed prehistoric chert flakes or historic debris. Part of the project had been under cultivation and had adequate to good ground visibility (Figure # 2). The two knolls closest to Gray's Run provided excellent ground visibility, but no cultural material was located. Both locations were intensively examined.

Several locations with archaeological potential were in grass. These areas were shovel tested and a total of 521 shovel tests were excavated. A site number was obtained from the Office of State Archaeology. The artifacts will be washed, catalogued, and curated at the University of Kentucky.

